

- + Spinal Cord Injury Simulations:
Lights, Camera, Action
- + Transforming Care at the Bedside
- + How to Make a Difference in
Functional Outcomes of Children
with Spina Bifida
- + Getting Ready for the Unexpected:
Disaster Preparedness



SCI NURSING



AMERICAN ASSOCIATION
OF SPINAL CORD
INJURY NURSES

AASCIN PHILOSOPHY STATEMENT

The American Association of Spinal Cord Injury Nurses (AASCIN) believes that spinal cord impairments (SCI) and related disorders (D) are multifaceted, catastrophic events with implications not only for those who are injured, but for families, significant others, and society as a whole. SCI/D nursing, as an art and science, has a primary role in assisting individuals with SCI/D to achieve and maintain an optimum level of physical and psychological well being. Nurses who specialize in the care of the individual with SCI/D are skilled practitioners with current knowledge of the pathophysiological and psychosocial implications of SCI/D, and possess the expertise to deal with the impact of SCI/D on the individual, family, and society.

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SCI NURSING JOURNAL

American Association of Spinal Cord Injury Nurses

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AMERICAN ASSOCIATION
OF SPINAL CORD
INJURY NURSES

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PRESIDENT'S MESSAGE

Mary Ann Reilly, MSN, RN



It is my honor to have been elected as the 2008-9 President of AASCIN. I would like to introduce myself. Currently I am the Nurse Manager of a SCI unit, Brain Injury and Stroke unit and an eight Rehabilitation Trauma Center at the Santa Clara Valley Medical Center in San Jose, CA. My first introduction to AASCIN was my participation in a Job analysis focus group in 2000 when AASCIN was researching a SCI certification. I was hooked! The nurses who participated in the focus group motivated me to join a committee. I was selected to serve on the Program Committee and in 2005 chaired the annual conference in Las Vegas. I was elected to the BOD in 2007.

In the last issue of SCI Nursing, you read about my professional life. I am delighted to share a bit about my family. I am the proud Mother of three. Colleen is recent graduate with a Masters in Therapeutic Recreation. Colleen works for the VA in Menlo Park, CA. Ed lives in Chico, CA and works in computer sales. Maureen is a recent law school graduate, awaiting the results of the bar exam. She lives in Santa Rosa, CA with her fiancée Brian.

This year will be an exciting and challenging year for the AASCIN as we continue to collaborate with APS, APSW and the Therapy group to establish the Academy of Spinal Cord Professionals. It is my goal to keep you informed of the Academy's progress to incorporation. It is also my goal to keep you informed of the support being given to the Academy by PVA as they assume the role as our sponsor.

Each of you, as members of the AASCIN and future members of the Academy, has the responsibility to bring one new nurse into the Academy. It is with the strength and determination from each member that this new interdisciplinary association will carry on the goals of their former associations. We, as one voice for the Spinal Cord Professionals, will continue to provide 3 quality journals, publish standards of practice and assemble the greatest number of Spinal Cord Professionals at the annual conference.

I would love to hear from each of you and welcome your comments and concerns. I can be reached at ma-reilly@sbcglobal.net.

Mary Ann Reilly, MSN, RN

Mary Ann is a Rehabilitation Nurse Manager at Santa Clara Valley Medical Center in San Jose, California and is the current President of AASCIN.

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EDITORIAL

South Africa’s Nursing Challenges and Provisions for Overwhelming Patient Care

Verena Briley-Hudson, MN, RN, CNA

I participated in a professional delegation of nurse leaders and their guests, August 11-21, 2008, for an exchange with our professional counterparts in South Africa. We visited Johannesburg and Cape Town, and had the delightful opportunity to also tour other areas. Under the auspices of People to People Citizen Ambassador Program (web site, www.ambassadorprograms.org) health care professionals and others can enhance their communicating practices and advancements by sharing with distant colleagues face to face, creating a forum to expand innovative ideas, such as this exciting opportunity and journey.

As nurses, we are all nurse leaders; it is time to move to a global focus and place greater emphasis on multiple health care initiatives that affect a changing world. We must embrace the art of foresight as we do the art of nursing for the element of success, because without both, we cannot prepare for what we need to know now and to prepare others for the future.



Health Care Systems and Challenges in South Africa

To explore the South African culture and to learn more about their health care delivery systems, quality of care issues, and the overwhelming challenges that are a part of nurses’ work, I found this experience to be a wonderful venue. My primary purpose was to learn how nurses are addressing the many complex health needs throughout this country.

First hand, up front, and personal, I had the opportunity to participate in an open exchange of dialogue about our country and their nursing care delivery programs. South Africa’s major health issues are HIV/AIDS and its associating morbidity and mortality rates, the mounting quantity of orphaned children, who are estimated to be 80% HIV positive, diseases linked to the soaring rate of tuberculosis, the lack of sanitary necessities for instance, running water and sewer systems for those who live in sub-standards conditions because of poverty, and the continual influx of immigrant Africans who escape their conditions and flee to South Africa in hopes to find a better life. Challenges that nurses and doctors face in South Africa are incredible. Their boundless energy for dedicating their strength to obtain limited resources to provide basic medical and primary care to a population of more than 9.5 million in Johannesburg and 3 million in Cape Town was observed as with spirit and compassion.



Nursing Education in South Africa – The heart of nursing for the future.....

On a visit to the University of Western Cape, School of Nursing (SON), Cape Town, we were able to capture and gain knowledge of what was surprisingly very similar and to also appreciate the differences between nursing education, nursing practice, and health care in South Africa and the United States. I was fortunate to be able to meet with the Dean of Nurses and several of the instructors. The SON forms part of the Community and Health Science Faculty, and is recognized for the largest nursing undergraduate program in the southern region with a student enrollment of approximately 1,154.

Their goals include, “enhancing scholarship within nursing and making a valuable contribution to health care delivery and research, nationally and internationally.” They are also, as in our nursing programs, dedicated to training and developing caring, competent, and empathetic nurses. Focusing on recruiting and aiding nursing students from marginalized

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The most prevalent diseases that nurse practitioners treat are tuberculosis and HIV/AIDS for adults and upper respiratory tract illnesses in children.

communities to become nurses is of great concern, therefore their policies and communications are carefully considered to support student success. Both undergraduate and post graduate nursing degrees are offered. After the Baccalaureate nursing undergraduate successfully completes the requirement, she/he is ready for practice after completion of 4000 hours of clinical training. Post graduate programs at the University are offered in midwifery, psychiatry, education, and there is also a Doctoral research program. After graduating as a nurse, there are no further requirements for examination for licensure; however, registration with the South African Nursing Council (SANC) is a mandatory requirement to practice.

The SANC is responsible for setting the nursing education and practice standards that reflects its Nurse Practice Act. Their mission includes a commitment for protecting both the public and students. All nursing programs, students, and nurses must be registered with the SANC. The SANC differentiates between the roles of a professional nurse and a staff nurse. The professional registered nurse graduates with a four-year Baccalaureate degree while the staff nurse is trained as a technical nurse; which might be the equivalent of the Licensed Practical Nurse in the United States. A bridge program is offered which allows staff nurses to advance and to become professional nurses.

Currently there is a significant increase in the number of males entering the nursing profession which could be indicative as an offset to a major dilemma, a loss of critical resources: the mass departure of qualified nurses from South Africa to countries such as, the United States and the United Kingdom.

Leaving after our brief encounter with our colleagues of Cape Town, we realized how much we do have in common.

Direct Access to Health Care through Mobile Community Clinics

We visited mobile community clinics located inside of “shanty towns” with populations of over 22,000. Stellenbosch Sub-District Region’s clinic completely nurse driven by Advanced Nurse Practitioners shared their work with us. We learned that within many of the larger cities and communities of South Africa, patients migrate from many areas, but particularly from the Eastern Cape. Some of the reasons we were told had to do with better health care, less people, preferences to the Western form of care, improved child care, and baby delivery. The most prevalent diseases that nurse practitioners

treat are tuberculosis and HIV/AIDS for adults and upper respiratory tract illnesses in children. Prevention is a key initiative in their work as we observed literature, posters, self-education areas for hypertension, antenatal, reproductive health, sexually transmitted disease, diabetes mellitus, and gastrointestinal illnesses. Each clinic that we visited had overcrowded conditions, simple waiting areas, and obvious long waits. In their attempts to provide access to care, it was very obvious that the nurse practitioners were highly valued as they proudly delivered care. There were few nursing students and occasional volunteers, if so, mostly from the United States to assist. Nurse practitioners refer patients to the small number of available physicians when needed or refer them to local hospitals; however access is also boundless in many communities.

We were curious about the levels of nursing staff throughout our visit and the distinguished maroon shoulder epaulet with various medals as we would see on a decorated military officer. Interestingly so, rank has its privileges as represented by their shoulder epaulets and as it did during the days of our old nursing caps with the version of stripes and colors. The medal bars and pins are only given to the registered nurses.



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Witnessing patient care in a variety of settings alongside other healthcare professionals, comparing the quality of care, learning how nurses learn about the incidence and treatment of disease, and sharing our nursing talents was an outstanding/magnificent experience.

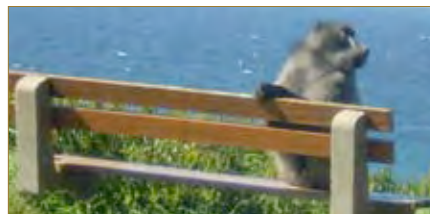
Cultural Delights throughout our Visit with Nurse Leaders

While our delegation had the opportunity to enjoy our professional colleagues' work, we also took great pleasure in also enjoying the sights, sounds, and tastes of South Africa.

Johannesburg

Known as the financial, commercial and industrial hub of South Africa, we found that this city was very modern, spacious, and the people excitingly friendly. Our hotel, located in the suburbs was much more than expected, and the food was just as great! Some managed a venture to Pretoria, the capital of South Africa, and to trace the history of the Great Trek at the Voortrekker Monument. A visit to the Paul Kruger House where personal stories about the Boer resistance leader were recanted was equally as exciting. Strolling through Church Square, with its historical buildings and enjoying a panoramic view of Pretoria from the Union Buildings we could only dream of the past experiences there. Delegates and guests embarked on an exploration of the darkest years in South African history at the Apartheid Museum. Experiencing Soweto, a city of stark contrasts, we observed the palatial homes of millionaires that stand beside the shacks inhabited by the destitute. We also visited landmarks such as the Chris Hani Baragwaneth

Hospital, the largest hospital in the Southern Hemisphere; the Hector Peterson Memorial; Winnie Mandela's home; Bishop Tutu's house; and the former home of Nelson Mandela.



Cape Town

Cape Town, the oldest port in southern Africa, is regularly heralded as one of the most beautiful cities on earth. Situated in the far southwestern corner of Africa, Cape Town is physically separated from the rest of the continent by a mountain range. We enjoyed a leisurely walk about town and dined at one of the many amazing restaurants Cape Town has to offer. A cultural day included spending the day enjoying the sites in and around Cape Town. And certainly we had to get our "shopping on" by visiting many craft markets and the magnificent Victoria & Alfred Waterfront filled with some of the best restaurants and mall stores, in the heart of one of the most beautiful and compelling cities on the planet.

We experienced the beauty of the countryside via a coach tour of the Cape Peninsula, which included the Kirstenbosch National Botanical

Gardens, and the Cape of Good Hope (Cape Point) in the Cape Peninsula National Park. Extraordinary care has been taken to protect the environmental integrity of the area. A reserve of indigenous flora and fauna and home of the unique Cape Floral Kingdom, its remarkable natural beauty makes it a destination for both foreign and local visitors.

Delegates also had opportunities to take optional tours as time permitted which included the notorious Robben Island prison tour of a small island 7 Km off the coast near Cape Town where Nelson Mandela, former President of South Africa, the first to be elected in fully representative democratic elections. Before his presidency, Mandela was an anti-apartheid activist and leader of the African National Congress and its armed wing Umkhonto we Sizwe, was sentenced and began his life imprisonment. He was held captive there for over 18 years. Also some delegates and guests bravely visited Kruger National Park where the "Big Game 5" e.g., lion, Cape buffalo, rhinoceros, leopard, and elephant roam. And we understand from those who experienced this delight that they had no difficulties in locating the ever-present giraffe, zebra, kudu, impala, and warthog as we heard that they were up front and personal, along with the rugged wildebeest, the cagey hyena, and many types of antelope.

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A view and a trip on a revolving aerial cable car to the top of Table Mountain, a World Heritage Site and a famous landmark of Cape Town was “drop dead gorgeous.” We think we saw where it’s rumored to be the place where the Atlantic and Indian Oceans actually meet.

Witnessing patient care in a variety of settings alongside other healthcare professionals, comparing the quality of care, learning how nurses learn about the incidence and treatment of disease, and sharing our nursing

talents was an outstanding/magnificent experience. What better way to have experienced and shared a richness that will open new doors to improving health care and health care outcomes than with our very own nurse leaders and their guests! If nurses investigate potential global alliances with other international nurse leaders, together we create a powerful world of health care opportunities to improve quality and mutual nursing concerns. I just can hardly wait until the next journey, so stay tuned for all that is yet to come!!

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FEATURE ONE

Challenging role of the data collector in a SCI Research Study on Pressure Ulcer Healing

Stephanie McGovern, RN; Francis Hernandez, RN; Suk Tomlinson, RN; Olivia Monteso-Smithson, RN; and Linda C. Smith, RN

Abstract

Persons with spinal cord impairment (SCI) have an extremely high incidence of pressure ulcers due to their lack of sensation, movement, and activities, compounded by multiple other risk factors. Once a pressure ulcer occurs, it is typically difficult to heal and requires close monitoring throughout its course of healing.

A study, “Monitoring Pressure Ulcer Healing in Persons with Spinal Cord Impairment,” was developed to monitor the process of pressure ulcer healing over time in persons with SCI. The purpose was to develop a monitoring tool to assess pressure ulcer healing specifically in persons with SCI. This three year longitudinal, prospective study was funded by Health Services Research and Development, Nursing Research Initiative, for the purpose of developing the reliability, validity, and sensitivity of a tool to monitor pressure ulcer healing over time.

This article will describe the experience of four RN Data Collectors engaged in this study. The authors will explore the process from launching this novel role after/while being a staff nurse, participating in rigorous training, establishing inter- and intra-rater reliability, hurdles in assessing the variables (see Figure 1), documentation, and other aspects of this interesting role.

Key Words: monitoring tool, RN data collector

Research Initiative (NRI 03-245-4), Department of Veterans’ Affairs. The views expressed in this article are those of the authors and do not necessarily represent the views of the Department of Veterans’ Affairs.

Persons with spinal cord impairment (SCI) have an extremely high incidence of pressure ulcers due to their lack of sensation, movement, and activities, compounded by multiple other risk factors. Once a pressure ulcer occurs, it is typically difficult to heal and requires close monitoring throughout its course of healing.

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SCI. This three year longitudinal, prospective study was funded by Health Services Research and Development, Nursing Research Initiative, for the purpose of developing the reliability, validity, and sensitivity of a tool to monitor pressure ulcer healing over time.

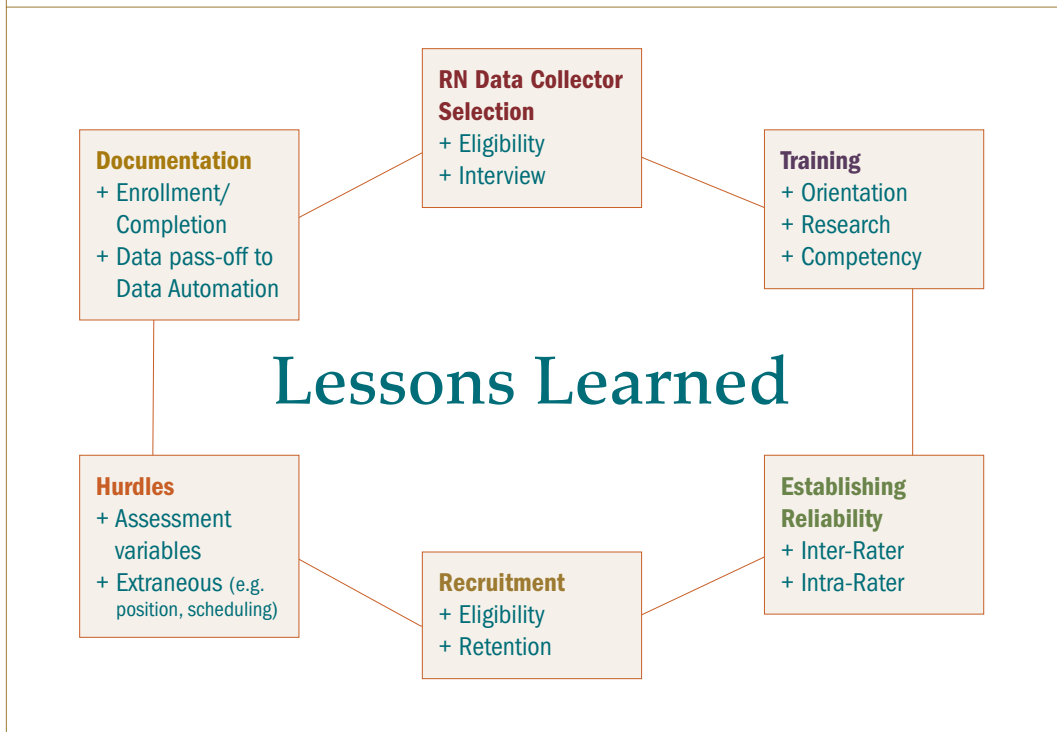
Background

This article will describe the experience of four RN Data Collectors engaged in this study, which involved SCI patients in inpatient, outpatient, and home care settings. The authors will explore the process from launching this novel role after/while being staff nurses, participating in rigorous training, establishing inter- and intra-rater reliability, hurdles in assessing the variables (see Figure 1), documentation, and other aspects of this interesting role.

Part-time Data Collectors were ideal for providing flexibility of coverage when another Data Collector was on leave. Three

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FIGURE 1: Evolution of RN Data Collector's Role



out of four Data Collectors were also SCI staff nurses, which gave them an advantage over the non-SCI nurse in regards to positioning the person with an SCI for the best view of their pressure ulcer, knowing the routine of the nurses on the floor, and knowing whom to contact for scheduling of visits. The Data Collectors who were also SCI floor nurses had the advantage of having an established relationship with the staff on each unit. This relationship helped gain support and cooperation during the data collection process. Two alternate Data Collectors with SCI backgrounds were also trained in case of illness or emergency involving the primary Data Collectors.

Training

The training for the Data Collectors had several aspects. They were given orientation to their roles and introduced to the research team. The team met and viewed slides of pressure ulcers prior to beginning any hands-on assessment. They discussed how each person would assess and classify different ulcers using the assessment variables that were identified for this study (i.e., Monitoring Tool). The Data Collectors were required to complete internet training in regards to good clinical practice, patient confidentiality (including HIPAA), research ethics, and driver safety. Everyone was trained on the use of a digital camera to photograph the pressure ulcers. The final and most

extensive part of the training was establishing reliability among Data Collectors (see below).

Data Reliability

Consistency among Data Collectors in variable assessment is critical. Inter- and intra-rater reliability indicates consistency of data collection. Inter-rater reliability (IRR) is comparing assessments with other Data Collector(s); intra-rater reliability (IaRR) is comparing serial assessments taken by the same Data Collector. A sample number was established by the Psychometrician and participants were recruited from the inpatient SCI units. IRR was challenging as patients had to be assessed by five Data Collectors (three permanent and two alternates). The Data Collectors assessed ten ulcers three times with each assessment one hour apart. Performing assessments in this manner was done to ensure the least amount of ulcer change from one assessment to the next. Also, many inpatients had therapies, tests, or procedures throughout the day; this made it problematic to find patients who would remain in bed long enough for each Data Collector to complete the 10 page Monitoring Tool three times (15 assessments lasting approximately 20 minutes each). Hip and shoulder pain is a common factor for many individuals with SCI, so it was difficult for some participants to remain positioned for optimal viewing and assessment of their ulcer(s). Breaks

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Environmental controls are acts people perform to control nature, such as medicinal practices, religious beliefs and experiences, and rituals and taboos.

and repositioning were offered to limit patient discomfort. Data Collectors collaborated with staff nurses to make pain medication available if needed.

Coordinating with nursing staff was critical to completing this portion of training. Nurses have several patients and many responsibilities external to patient care. Many nurses like to plan their day and complete morning care early in their shift. During IRR, they were unable to assist these patients with bathing, dressing, wound care, etc. until much later in the day. Data collection was initially seen as unnecessary and inconvenient by many of the staff. Time was spent with nurses on the SCI units explaining the study and its relevance to their practice.

Once IRR assessments were complete, these were given to the Psychometrician for analysis. All Data Collectors then met with him to discuss the outcome and identify where the largest discrepancies were found. The assessments completed by the Principal Investigator (alternate Data Collector) were considered the “gold standard” by which the others were compared.

The Data Collectors spent a great deal of time discussing each ulcer and giving input as to why they chose certain items on the Monitoring Tool (see **Table 1**). It was noted that on some items, each Data Collector selected a different answer. For example, what one Data Collector labeled necrotic, someone else labeled granulated. Surprisingly, length and width were measured several ways by different people. Some Data Collectors measured length from head-to-toe (12 o'clock to 6 o'clock), whereas others documented length at the greatest measurement regardless of orientation. Thus, agreement was reached on how each item on the Monitoring Tool should be interpreted. It was decided that a “worse case scenario” approach should be used. This meant, for example, that if there was even a negligible amount of necrotic tissue, the ulcer should be documented as necrotic. By taking this approach, Data Collectors were able to stay consistent in their assessments. IRR was repeated several times to ensure data were collected accurately.

laRR was established in a similar fashion but was far less challenging. Data Collectors assessed each wound twice; again, assessments were one hour apart. These assessments were compared to each other to determine if a sole Data Collector assessed the ulcer(s) the same each time. The biggest obstacle with laRR was finding people willing to participate. As with IRR, many people did not want to commit such a large part of their day to wound assessment. Fortunately, several of the patients who consented to IRR were willing to participate in laRR as well.

Digital Camera Competency

An important part of training for Data Collectors was establishing competency on use of the digital cameras. These photographs were evaluated by a Physician Co-Investigator to ensure consistency and clarity of the images. Data Collectors were instructed on the procedure for downloading and saving images to the computer. The photographs were a critical aspect of study data. These were used with a computer program that allowed the Data Manager to outline the margins of the ulcer using the computer mouse and obtain a measurement calculated by the software. Data Collectors were required to mark the ulcer depth on the cotton applicator used for measuring. This applicator was held or taped next to the ulcer while the photograph was taken.

There was also a small white square of paper that was used both as a label to notate the subject's ID number, date, and ulcer location and to give the computer software a scale reference. The paper, the applicator, and ulcer all had to be on the same plane in order for the computer to get an accurate measurement; this proved quite challenging.

The camera angle was extremely important; if the photo was not taken at a ninety degree angle to the ulcer bed the measurement calculated by the computer software could be much larger or smaller than the actual wound. Determining the correct angle could be very difficult at times as Data Collectors were often trying to hold the subject in position, maintain the applicator and paper on the same plane as the ulcer, and concurrently take a photo.

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The SCI home care staff was informed of the study and asked for their cooperation by providing brochures to any home care patients with ulcers.

Data Collectors were requested to take several photos of each wound and then save the two best images. The Data Manager would then select the “best” photograph of the ulcer.

Recruitment and Retention

Several methods were used to recruit people to participate in this study. Direct recruiting by research staff was prohibited. It was important that recruiting be done indirectly and in a manner that did not appear coercive. Large posters were printed and displayed throughout the hospital. Brochures were given to SCI physicians, nurses, social workers, and psychologists. The Data Collectors asked the interdisciplinary team to distribute these brochures to patients with pressure ulcers. Information about the study was placed in the Paralyzed Veterans of America (PVA) newsletter. The SCI home care staff was informed of the study and asked for their cooperation by providing brochures to any home care patients with ulcers. Patients were also referred from nurses working on other studies. Data Collectors went to the nursing units daily to remain visible and remind staff that they were recruiting.

In order to be eligible to participate in the study, certain criteria had to be met. Inclusion criteria were as follows:

- Enrolled in SCI/D registry
- Receiving primary care from a James A. Haley VA Hospital SCI physician
- Have a SCI for one year or longer
- Have primary or secondary diagnosis of a Stage II-IV pressure ulcer
- If outpatient, must live within forty miles of the VA facility

Exclusion criteria were:

- Immunocompromised
- Mentally or cognitively impaired
- Life expectancy less than six months as determined by a physician

In order to facilitate retention, every effort was made to accommodate subjects’ requests for day and time of visits. Data Collectors collaborated with nursing staff when

scheduling inpatient visits and an attempt was made to visit subjects during routine dressing changes. This allowed for the least amount of inconvenience for the person being assessed. Likewise, Data Collectors worked with caregivers in the home setting to schedule assessments when the dressing would be routinely changed. Data Collectors were careful to find out where inpatient subjects lived. This was important because, if they exceeded the 40 mile radius required for inclusion, they may be discharged from the hospital before completing the study. In these cases, meeting with the subject’s physician was necessary to estimate how long that individual would be in the hospital. This lesson was learned early in the study; Data Collectors were recruiting patients, assessing them four – five weeks, and then learning the subject was being discharged to a home that exceeded the 40 miles. This was an unnecessary time expenditure for the subject as well as the Data Collector.

Having SCI nurses as Data Collectors was a huge benefit as far as recruitment and retention. These nurses had established relationships with patients, caregivers, and staff to gain confidence and cooperation. The Nurse/Data Collectors worked in SCI nursing a minimum of six years and had known the staff and cared for these patients all of that time. They could also relate to the Nurses working in patient care and were understanding of the hectic pace and sometimes relentless workload. Data Collectors found that, as long as they respected the Nurses’ time, the staff was willing be somewhat inconvenienced in order to allow for data collection. Having a nurse on the team who did not come from the SCI unit had benefits as well. While the other nurses relied on established relationships, she was required to think “outside the box” in recruiting efforts, while still complying with constraints established by the Institutional Review Board. Overall, the most important parts of recruitment and retention were being nice and being flexible.

Informed Consent Process

Documentation started once a subject showed interest in participating in the study. Any interested candidate was

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logged and scheduled for an initial visit. During this visit, study brochures and HIPAA information was given and informed consent was signed. Informed consent required the signatures of the Data Collector and a witness. In the event that the SCI patient could not physically sign the forms, a second witness was required. Initial documentation also included a Screening Tool to determine the subject’s eligibility for the study. This form was comprised of the inclusion and exclusion criteria listed previously. Upon determination of eligibility, a Research Consent Note was entered in the patient’s computerized patient record system (CPRS). The CPRS note included the study name, IRB number, Principal Investigator name, person obtaining consent, purpose and length of study, and date and time of consent.

Baseline Data

A Baseline Tool was also completed during the first visit. Information contained in the Baseline Tool included education level, location and duration of ulcer(s), amount of spasticity, height, weight, and level of injury. It also documented issues likely to affect the subject’s ability to adhere to treatment protocols, as well as medical diagnoses that may interfere with wound healing. The Baseline Tool was only completed one time per subject.

Weekly Monitoring Tool

Subsequent visits were documented on the SCI Pressure Ulcer Monitoring Tool and noted on the Weekly Tracking Sheet. The Monitoring Tool was an in-depth assessment documenting all aspects of the ulcer. It also included questions regarding the subject’s pain, spasticity, cigarette smoking, and incontinence. All forms and cameras were kept in a locked file cabinet only accessible to staff involved in the study. Forms and digital images were collected by the Data Automation Clerk weekly.

Termination/Withdrawal

In the event a subject ceased participation in the study, a Termination Note was entered in CPRS documenting that they were no longer involved. It was also noted on

the Weekly Tracking Form. There were several ways a subject could terminate participation: twelve weeks in the study, voluntary withdrawal, healed ulcer, discharged and lived more than 40 miles from the facility, or flap surgery/amputation.

TABLE 1: Hurdles for Pressure Ulcer Assessment Variables

ASSESSMENT VARIABLE HURDLE	LESSONS LEARNED
All	Select the <i>worst</i> assessment if there is ambiguity between assessment parameters (e.g. ANY necrotic tissue means the ulcer is classified as necrotic).
Exudate	Differentiate whether drainage should be assessed: - On the dressing, or the ulcer - Before, or after ulcer cleansing Do not classify ointments as exudate (papain/urea/chlorophyll is not “green drainage”, silver sulfadiazine is not “purulent drainage”)
Length/Width	Differentiate whether assessment is length: - 12 to 6 o’clock (12 – patient’s head; 6 – patient’s feet) - Greatest length, regardless of head/foot orientation Differentiate whether assessment is width: - 9 to 3 o’clock (left to right) - Perpendicular to second length above Use rigid cm. measuring guide; avoid flexible or stretchable guides Measure only inner open area; avoid ulcer margins Gently spread the ulcer if it is located in a crevice (e.g., coccyx)
Depth	Deepest vertical point perpendicular to a horizontal plane from ulcer margin to margin (using q-tip to intersect plane); avoid tunnels. Avoid staging, since ulcers cannot back-stage an ulcer. Consider using descriptors (full thickness, partial thickness).
Undermining	Parallel to the intact skin surface; must be able to visualize end of up-lifted q-tip. The % of undermining can be in different locations of the margin (i.e., non-contiguous).
Surrounding skin	Edema – (shiny, taut, pitting, crepitus) assess within 6 cm of ulcer. Induration – (“pinch” tissue, including scar tissue) assess within 4 cm. of ulcer.

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Although the SCI nurses added specific knowledge and expertise in dealing with the SCI population, there were drawbacks as well.

Adverse Events

Data Collectors were required to complete an Adverse Event Form for any event that occurred during the subject’s participation in the study. Examples of adverse events would be death or injury, whether or not it is related to the study. One patient did expire and an Adverse Event Form was submitted to the Institutional Review Board.

Discussion

There were numerous obstacles to overcome for the Data Collectors on this study. One would think that pressure ulcer assessment is very concrete. This is not always the case. Assessment variables were the most time consuming of the hurdles encountered during this study (see Table 1). It took many hours of discussion for the team to agree on every item of the Monitoring Tool. Each Data Collector assumed the role with their own skill set and experiences; it was surprising to find that there were so many opinions on how to assess an ulcer. For example, how far do you spread a sacral ulcer to measure it – or do you spread it at all? Do you measure just inside the ulcer margin or right on it? What is moderate drainage versus heavy drainage? These things seem like small differences, but the Data Collectors found that these disparities may result in great variations in assessment.

Although the SCI nurses added specific knowledge and expertise in dealing with the SCI population, there were drawbacks as well. Some of the subjects and nursing staff had difficulty separating the two roles. Patients would want the Data Collectors to perform non-research duties during the visits; this was true of their roommates and families as well. Nursing staff could not understand why these “Nurses” would not get medications for the study participants or help patients with their lunch. Some patients would become angry and see the Data Collectors as unwilling to help them. During home visits, patients would ask study staff to check on medication refills or refer messages to their doctor. This was not such an issue for the Data Collector that did not come from the SCI unit. Without that familiarity,

the boundary was more defined. With consistent reminders, most people became accustomed to seeing these nurses in their new role.

Another issue was how the Data Collectors handled the information they were gathering. It was common for subjects to ask, “Has my ulcer gotten worse?” or “Is my ulcer improving?” Also, subjects would request copies of the digital images. In these cases, they were reminded of the nurse’s role as Data Collector and they would be referred to their physician. On numerous occasions physicians would ask that the images be put in the PACS (picture archiving and communication systems) so they would have access to them; these requests were denied and physicians were referred to the Principal Investigator.

As previously stated, Data Collectors attempted to schedule visits at a time most convenient to the subject. To ensure consistency of data, visits were to be done on the same day each week. In certain circumstances the subject could be seen the day before or the day after their scheduled day. If a Data Collector was unable to visit the patient during this window, the data was missed for that week. This became an even bigger challenge when a subject became ill and was moved to intensive care. Many times these individuals were just too sick to be seen for study purposes. Attempts were made by Data Collectors to schedule visits when the ICU nurse was performing wound care. However, often the staff was too busy to assist with positioning and holding these patients for the amount of time needed for such a thorough assessment. The patients in ICU are connected to many monitors and the movement needed to complete the Monitoring Tool would often disrupt equipment and set off alarms. In most cases, data was not collected on subjects in ICU.

When this study began, Plastic Surgeons in our hospital were at a premium and most pressure ulcers were managed with topical treatments or sharp debridement. Several months into the study, a new Plastic Surgeon began placing myocutaneous flaps on the pressure ulcers; this meant

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there were patients on week three (of twelve) or even week eight (of twelve) whose data collection ended prematurely. The only way to overcome this obstacle was to communicate regularly with physicians in attempt to determine which patients may be candidates for flap surgeries. By doing this, Data Collectors could avoid recruiting someone who is having a flap in two or three weeks. However, there were times study data was able to be collected for 12 weeks before an individual was ready for surgery, usually due to other medical conditions.

Another barrier encountered during this study was caregiver involvement. There were several occasions in which Data Collectors were approached by a patient interested in participating and Informed Consent was signed. Upon arriving at the subject's home, the Data Collector was notified that they were no longer interested because their caregiver did not realize the benefit and had convinced the patient that the study was a waste of time. There was one instance where the only witness available to sign the consent form was the subject's wife, and she refused to sign as she did not believe that her spouse should take part. In these situations, the Data Collectors expressed understanding and left the offer open if the subject later elected to participate.

The alternate Data Collectors involved in this study had barriers to overcome that were not realized by the primary Data Collectors. As the study progressed, the primary Data Collectors developed a rhythm and had a routine with the subjects. This saved precious time at the bedside. The alternates found it took them much longer to complete the assessments and get photographs of the ulcers, but because of their years of SCI experience and rapport with patients and staff they were able to effectively collect data.

Conclusions

Pressure ulcers consume large amounts of time and resources, and these can negatively impact the self image of people with SCI. At this time, there is no standardized way to monitor healing of these wounds. As the Data Collectors found during the course of this study, there is



a significant variation in practice as far as pressure ulcer assessment and monitoring. Although there are many tools currently available, there are noteworthy differences regarding how health care professionals interpret and use them. Of these tools, none of them deal specifically with the unique needs of the SCI population. As Data Collectors on this study, we had the exciting opportunity to help establish the foundation of evidence-based practice for pressure ulcer monitoring in our facility. It made us more aware of our own practice and will allow us to educate our fellow nurses in hopes of seeing more consistent assessment findings among health care professionals.

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FEATURE TWO

Spinal Cord Injury Simulations: Lights, Camera, Action

Lucinda Weaver, BSN, RN and Deanna Persaud, MSN, RN

Abstract

The use of a human patient simulator (HPS) can provide nursing students with risk-free “hands on” care of a patient with a spinal cord injury (SCI). The HPS allows students to provide simulated care in a learning environment in which their actions or inactions determine the patient’s progress and outcome. This paper shares the experiences of the nursing faculty who developed scenarios for a patient with a SCI. Learning objectives, equipment/supply lists, content flow sheets and specific SCI scenarios demonstrate how others can replicate this experience for students in similar settings.

Key Words: Simulation, Spinal Cord Injury (SCI), Nursing Education, Human Patient Simulator (HPI)

Introduction

Nursing students rarely feel they have enough “hands-on” clinical practice in the acute care setting. This feeling is intensified when a disease or condition has a limited patient population. Patients with acute spinal cord injuries (SCI) fall into that category. While it is highly desirable that each student has the opportunity to care for a patient with a new spinal cord injury during their nursing school experience, the actual opportunity to do so is unlikely for several reasons. First, the overall incidence of acute SCI in the general population is low, approximately 40 per million or 12,000 new SCI’s per year (University of Alabama, 2008). Secondly, in smaller communities, serious injuries are often transported to acute trauma centers or regional spinal cord injury centers. Finally, the clinical experiences for nursing students do not always include trauma or intensive care units. All of these factors limit the student’s exposure to caring for a person with an acute SCI.

To address these concerns and to provide students with the opportunity to transfer their theoretical knowledge into clinical practice, five SCI patient care simulations were developed. These simulations address common nursing

concerns encountered by nurses working with persons who have sustained a SCI. While the simulations were specifically designed for nursing students, they are also applicable to any member of the medical community with the need to get “up to speed” in an area of specialized patient care. Nurse educators working with new employees in a general hospital or those doing in-service education on SCI units may also find the simulations beneficial. Numerous other opportunities could be available due to the added number of simulation centers associated with medical centers.

High Tech? Low Tech? Combo Tech?

Rationale for using simulated experiences to enhance clinical competence abounds in the literature (Comer, 2005, Henneman, Cunningham, Roche, & Curnin, 2007, Peteani, 2004). Nurse educators have long used “low tech” simulation tools to enhance learning, (i.e., role playing, flash cards, mannequins/props). We now have the ability to combine these traditional “low tech” educational tools with cutting edge “high tech” instruments. With the advent of Human Patient Simulators (HPS), nurse educators can now create lifelike patient scenarios using risk free “hands on” clinical simulations. The HPS has all characteristics of a traditional human mannequin used in nursing skills laboratories, plus it has the ability to be programmed via a computer to verbalize (moan, make statements, ask

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questions). Also, the HPS can generate vital signs and vital functions (heart, lung, and bowel sounds), which can be programmed to change in response to the action or inaction of the student. In our experience, we have found the combination of both “low tech” and “high tech” tools can be used together to form what we call “combo tech” simulations. Combo Tech simulations can be designed to provide the student with optimal learning experiences. Nurse educators who do not have access to HPS may accomplish the same objectives.

Scenario Construction



Meet Jared, A Human Patient Simulator with a SCI. Moulage increases feelings of realism. Note: “inflamed” pin site. (Photo by Dave Weaver, Chico, CA)

Components of the simulation template developed by the National League for Nurses (NLN) were used to promote consistency (Jefferies, 2000). As designers, we were challenged with developing case scenarios that would

provide students with clinical experiences that addressed the unique needs of the patient with a SCI. We needed to “set the stage” for them to prepare to perform patient care. We also needed to design clinical scenarios that would provide “hands on” simulated care at the bedside. The NLN template assisted us to cover all points of both design aspects.

We began by creating a patient to “star” in our simulations. We provided the students with background information that included a brief description of patient including biographical data, past medical history, history of the present illness, social history and medical diagnosis (see Table 1).

Following the introduction of the patient, we provided the students with medical information that they would routinely

TABLE 1: Simulated Patient Description

BRIEF DESCRIPTION OF PATIENT	
Name: Jared Brown	Gender: Male
Age: 22	Height: 6' 2"
Religion: Protestant	Major Support: Parents, Dan and Marie Brown
Phone: (530) 896-0708 (parents)	Allergies: Penicillin, Morphine
Immunizations: Current	Attending Physician: Dr. Lobosky, Neurosurgery
PAST MEDICAL HISTORY	
Jared Brown is a 22 year old white male with history of usual childhood diseases. His childhood health status was uneventful until at age 14 when he was hospitalized with acute appendicitis. Patient underwent appendectomy without incident.	
HISTORY OF PRESENT ILLNESS	
This young man was in his usual state of good health until he dove into the creek at Bear Hole this afternoon. Friends who were with him at the scene report that his body surfaced after the dive but that he appeared floating face down in the water.	
They rushed to his assistance, found him alert but unable to move his arms or legs. The patient was carried to the parking lot by his friends. He was loaded into the back of a pick-up truck and rushed to the local emergency Room (ER).	
Upon arrival to the ER patient demonstrated signs and symptoms consistent with an injury to the cervical spinal cord. CT results indicated that patient sustained a C5-C6 SCI with a complete lesion.	
SOCIAL HISTORY	
The patient just graduated from college with a BS in Business Administration. He has been staying with his parents while he hunts for his first job.	
<ul style="list-style-type: none"> • Primary Diagnosis: C5 Quadraplegia (complete lesion) • Surgeries/Procedures: Patient was placed in halo traction prior to being stabilized surgically with a C5- C6 cervical fusion. Patient currently has halo brace in place for immobilization. 	

expect to be available in an inpatient hospital chart. We have found that using actual forms from the local hospital facilitated the learners in pursuing information quickly. It also gives the simulations a feeling of authenticity. We prepared a mock chart that is available for the student to review prior to beginning the actual patient care. This chart is also available to the learner at any time during the simulation to review data or look up additional information. The mock chart includes the following information: Doctors Orders, Progress Notes, Nursing Notes, Notes from Social Workers,

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TABLE 2: Selected Contents from a Mock Chart

PHYSICIAN ORDERS	PROGRESS NOTE
Admit to Neuro ICU Attending: J. Lobosky MD Dx- C5-C6 Tetraplegia Allergies: morphine sulfate, Penicillin Solu Medrol per SCI Protocol Diet- NPO IV D51/2NS@125/hr. V/S and neuro signs q2h Cardiac Monitor Halo Brace Pin care q8h (Clean pin sites with ½ strength H2O2, Rinse with NS, pat dry, apply Betadine ointment around pins). HOB elevated 45 degrees Log Roll q2h Lovenox 5,000units sq q12 h. Thigh high TED Stockings Portable C-spine, CXR in the AM CBC, Chem panel in the AM. Notify MD if significant changes in v/s or n/s	CT demonstrated complete lesion at C5-C6. Halo traction changed to halo brace. Solu Medrol Protocol Initiated in the ER. H&P dictated.

TABLE 3: Student Resources Available

Verbal Report	Hospital Policy and Procedure Documents
Resource Nurse	Textbooks:
Co-worker	· Medical/Surgical
Patient Chart	· Lab Book
	· Drug Guide

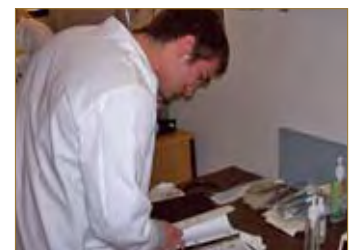
Lab/Radiology results, Medication Administration Records, patient care card (Rand/Kardex) and Nurse Charting Flow Sheets (see Table 2).

In addition to the patient chart, students participating in the simulations have access to resource materials that would likely be available on an inpatient hospital unit. Standard resources include a medical surgical text book, medication and laboratory reference books, and an experienced resource nurse. The function of the resource nurse is to provide information that might be unavailable in their printed resources or if the student feels the need for assistance in

TABLE 4: Supplies Needed to Provide Care

EQUIPMENT AND SUPPLIES
<p>Designer Identifies Equipment</p> <p><i>To Be Available in Patient Room or Supply Room</i></p> <ul style="list-style-type: none"> • Fluids- D5 ½ NS • IV tubing • IV Pump • O2 delivery devices type Wall oxygen with tubing plus nasal cannula • Wall Suction • Heart Monitor • Supplies for Pin Site care: • Hydrogen peroxide, sterile normal saline, long q-tip Swab sticks, Betadine, dry sterile 4x4 gauze pads, sterile gloves • n/g tube and insertion supplies • Stethoscope • B/P cuff • I & O Foley catheter and insertion kit • Gloves <p>Props</p> <ul style="list-style-type: none"> • Signs: Neuro ICU, Bed #6, Rehabilitation Unit Room 18 • Equipment attached to manikin: <ul style="list-style-type: none"> - Halo Ring with Pins - IV tubing with primary line D51/2 NS fluids running at 125cc/hr - IV pump - Foley catheter with 240 cc output in the bag - Cardiac monitor attached- - ID band with the following info: <ul style="list-style-type: none"> Name: Jared Brown Date of Birth: 8/24/1986 MD: Dr. Lobosky Allergy Band: Penicillin, morphine sulfate

a timely manner relevant to a clinical incident (see Table 3). As designers, in addition to general resources, we identified materials that are specific to the scenario that the student is participating in. For example, if the student is expected to provide Halo Brace pin site care, the hospital policy and procedures regarding pin care is available (see Table 4).



BSN student, Andy Artzner, reviews a “mock” patient chart.

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A nurses station, which serves as a media control center, allows us to both view and record in each patient care room.



BSN students, Danielle Shurson and Andy Artzner, insert an nasogastric tube after Jared develops an ileus.

Student Preparation

As designers, we identified cognitive skills required to successfully provide simulated patient care. In preparation for the experience, students are required to do the following: Attend a two hour lecture on care of the patient with SCI, complete assigned reading and complete assigned computer assisted instruction modules.

Prior to the simulation, students are instructed to review simulation objectives (see Table 5). Depending on the care they are assigned to provide, they may be required to perform various psychomotor skills. Students are encouraged to review the policy and procedure prior to attempting any skills. The psychomotor skills required for the SCI simulation experiences are identified for the students as follows:

- Log Roll Patient
- Provide Pin Site Care for Halo Traction
- Insert N/G Tube
- Insert I&O Catheter
- Administer I.V. Med
- Change Primary I.V. Bag
- Administer SQ Medication

Setting the Stage

As faculty at California State University, Chico, we are fortunate to have access to the Rural Northern California

TABLE 5: Scenario Objectives

SETTING: NEURO INTENSIVE CARE UNIT
<p>Simulation 1. Spinal Shock The student will:</p> <ol style="list-style-type: none"> a) Perform a neuro assessment appropriate for a patient with a cervical SCI. b) Recognize signs and symptoms of spinal shock and provide appropriate nursing interventions. c) Interact with family and respond to questioning related to return of involuntary movement as spinal shock dissipates. (Nurses interact with Patient and his Dad). d) Change Primary IV bag.
<p>Simulation 2. Spinal Immobilization The student will:</p> <ol style="list-style-type: none"> a) Reposition the patient using log rolling technique to keep the spine in correct anatomical alignment. b) Provide care to the pin sites of a Halo Brace according to current hospital policy and procedure. c) Recognize S/Sx of inflammation/infection at a pin site. d) Contact MD and communicate findings/concerns.
<p>Simulation 3. Alteration in G.I. function in the patient with an acute SCI(Ileus) The student will:</p> <ol style="list-style-type: none"> a) Recognize the signs and symptoms of an ileus in a patient with recent SCI. b) Communicate assessment findings to MD. c) Insert an N/G Tube and connect to wall suction per MD orders.
SETTING: REHABILITATION HOSPITAL
<p>Simulation 4. Spinal Shock The student will:</p> <ol style="list-style-type: none"> a) Recognize S/Sx of autonomic dysreflexia. b) Intervene to prevent a hypertensive crisis. c) Nurse communicates with the Charge Nurse to inform her of the incident and how it was resolved.
<p>Simulation 5. Patient Teaching The student will:</p> <ol style="list-style-type: none"> a) Provide patient teaching re: pokilothermism. b) Instruct/ demonstrate to patient and his caregiver how to perform an I&O catheterization. c) Administer Lovenox sq. d) Instruct patient and caregiver regarding purpose, effects and side effects of medication.

Simulation Center (Sim Center). This SimCenter, (visit the website <http://www.csuchico.edu/nurs/SimCenter/index.html>), is housed in a portion of the Cohasset Campus of Enloe Medical Center in Chico, California. The SimCenter includes mock patient care rooms and a variety of HPS. A nurses station, which serves as a media control center, allows us to both view and record in each patient care room.

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The center has a separate media equipped conference room where non-participants can view scenarios. This room is used for critique during scenarios and for debriefing after the scenarios. The SimCenter is staffed with a technologist who assists faculty to obtain props/supplies needed and to set up for the simulations. The technologist provides technical support during the experiences. Additionally, the technologist orients students to the center and review expectations of students while at the SimCenter. Expectations include professional dress code, hand washing, and how to interact with the HPS. The technologist also obtains a user contract from each student and solicits student evaluations after each scheduled simulation experience.

Simulation Process: Lights, Camera, Action

A group of ten nursing students at a time participate in the each SCI simulation. Of the ten, two students are assigned the role of either the primary or secondary nurse. Three students are assigned character roles that may include being a family member, a doctor, or a resource nurse. Simple scripts or cue cards are provided for any character roles. As actors in the scenario students are instructed to participate “ad lib”. In this format, student actors may voice questions/concerns that could be anticipated from family members or other staff in a given situation.

The five students not participating in the current simulation remain in the conference room where they view and critique the care being provided. The conference room is a mediated room with a large flat screen TV and sound system. Students observing the simulations fill out critique sheets, which contain questions specific to the scenario they observe (See Table 6). Students rotate through various roles during each simulation.

Scripting the Scenarios

The scenario flow sheets, “scripts,” demonstrate our expectations of the student actors in each of the five scenarios (Table 7). As you will note, the various situations that occur are dependant on the action or the inaction of the students playing the role of the nurse. An attempt is made to keep the environment as life-like as possible. In addition to the students and the SimCenter technologist, two faculty members participate in the SCI Simulation. One member operates the computer controlling the HPS vocalizations and vital signs, the other orient, debriefs and troubleshoots to facilitate the flow of the actors.



Faculty member, Lucinda Weaver, programming the HPS during a simulation. (Photo by Dave Weaver, Chico, CA)

TABLE 6: Sample Critique Sheet for Autonomic Dysreflexia

- 1) Did the primary nurse perform a proper assessment?
 - What were the findings?
- 2) Did the nurse recognize the signs and symptoms of autonomic dysreflexia?
 - If not, what was missed?
- 3) What tool can be used to prevent a hypertensive crisis?
 - Did the nurse complete all of the proper prevention techniques?
- 4) Did the nurse recognize the possible etiology of the patient changes?
 - Did the nurse check the urinary catheter?
 - What other things should she have checked?
- 5) Did the nurse communicate the events to the charge nurse in an effective way?
- 6) What tips would you give our nurses?

Created by Becky Damazo, MSN, RN

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An attempt is made to keep the environment as life-like as possible.

TABLE 7: “Scripts” for SCI Simulations

SCENARIO #1: PROGRESSION OUTLINE (APPROXIMATELY 20 MINUTES)			
Timing	Manikin Actions	Expected Interventions	May use the following Cues
10 min	Manikin – in bed with HOB elevated 45 degrees. Halo Brace is in place.	The primary nurse will perform a neurological assessment appropriate for a patient with a cervical SCI The nurse will verbally describe the findings to the secondary nurse.	Role member providing cue: Secondary Nurse Cue: “How do you assess the patient’s Glasgow Coma Score when a patient is paralyzed?”
5 min	Patients V/S are consistent with Spinal Shock-(PULSE IS LOW, B/P is LOW!) HR = 56 no etopics B/P = 102/ 58 If the nurse chooses to speed up the IV fluids the patient develops acute pulmonary edema - Add crackles to Lungs - Drop Pulse Ox to 89% on RA If O2 is applied, increase pulse Ox to 95% If IV fluids are slowed back done crackles will disappear.	The Nurse will recognize signs and symptoms of spinal shock and provide appropriate nursing interventions.	Role member providing cue: Secondary Nurse Cue: “Golly, his B/P is really low. Should we speed up his IV fluids?” If IV fluids are increased, the patient will say: “I am starting to feel strange... like it’s difficult to breathe.” Secondary Nurse will notice decreasing Pulse Ox and ask; “Shall we put some oxygen on him?”
2 min	Father notices spastic movement in patient’s left leg. (leg twitches) Nurses interact with Patient and his Dad	The Nurse interacts with patient’s father and responds to questioning related to return of involuntary movement as spinal shock dissipates. Nurse must educate father that return of spastic movement does not indicate a return of functional movement. Nurse promotes the reality of the diagnosis: “complete spinal cord lesion.”	Role member providing cue: Patient’s father Cue: “Look nurse, Jared just moved his left leg. I just knew the doctors were wrong when they told me my son would never walk again.”
3 min	Cue: Alarm goes off	Change Primary IV bag (Volume in bag is < 50cc) if student does not recognize the need to change bag, the alarm goes off)	Role member providing cue: “Looks like Jared’s bag needs to be changed.” IV Pump

SCENARIO #2: PATIENT IS IN NEURO ICU: SCENARIO PROGRESSION OUTLINE (APPROXIMATELY 20 MINUTES)			
Timing	Manikin Actions	Expected Interventions	May use the following Cues
10 min	Manikin lying in bed with Halo Traction in place	Reposition the patient using log rolling technique to keep the spine in correct anatomical alignment.	Role member providing cue: Secondary Nurse: “What is log rolling and why do we do it?”
10 min	Area around pin site appears inflamed –	Provide care to the pin sites of a Halo Brace according to current hospital policy and procedure. Recognize S/Sx of inflammation/ infection at a pin site and contact MD. Nurse phone report to MD. Doctor informs nurse that he will be making rounds soon and will examine the pin site.	Role member providing cue: “Are you familiar with pin care protocol?” (if not) “Shall we look it up in the P&P manual?” The patients Mom says: “Nurse, don’t you think the area around the pin site looks red and a little swollen?” “Does it hurt, Jared?”

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SCENARIO #3: PROGRESSION OUTLINE (APPROXIMATELY 20 MINUTES)

Timing	Manikin Actions	Expected Interventions	May use the following Cues
5 min	Manikin lying in bed with Halo brace in place. States: "Nurse, I don't feel good. I feel like I am going to throw up."	Nurse explores patient's complaint then does a focused GI assessment. Findings include a distended abdomen and absent bowel sounds.	Role member providing cue: Mother Cue: "He didn't touch his breakfast this morning." Cue: "Gosh, his stomach looks bloated."
5 min		Nurse calls MD on the phone and provides report using SBAR tool to communicate Nurse repeats orders back to MD.	Doctor states: "Let's make him NPO. Call x-ray and order a flat plate x-ray of the abdomen. Go ahead and put down an NG tube and connect it to continuous low suction."
10 min	Patient asks: "Do I really need it?" "Stop, that hurts!"	Nurse reviews P&P on N/G placement if needed. Gathers appropriate equipment and supplies. Explains purpose and procedure to patient Nurse gently inserts NG tube using correct technique. Nurse provides support to patient during tube insertion. Tube is successfully placed and, position verified, tube is secured and suction is attached.	Role member providing cue: Mother Cue: "Have you ever done this before?" "Do you even know what you are doing?"

SCENARIO #4: PROGRESSION OUTLINE (APPROXIMATELY 20 MINUTES)

Timing	Manikin Actions	Expected Interventions	May use the following Cues
2 min	Manikin lying on bed. Patient says: "Nurse, my head hurts, can I have something for pain?"	Nurse assesses patient and notices he c/o headache, flushed. He is sweating below the level of the lesion.	Role member providing cue: Mom Cue: "Wow, look! Jared has goose bumps."
10 min	B/P is 170/ 90 Patient groans and says: "Oh, my head really hurts bad!" If Nurse chooses to medicate instead of treating AD, patient's BP will go up to 210/120 and he will become unresponsive. Strokes Out!!!	Nurse recognizes S/Sx of autonomic dysreflexia. Nurse elevates the HOB and assess BP	Role member providing cue: Secondary Nurse: "Shall we go get Jared something for pain?"
5 min	Manikin States: "My headache is going away." BP returns to 110/64	Nurses assess patient for possible causes and finds that his indwelling FC is kinked. Kink is relieved and bladder drains.	
3 min		Nurse communicates to charge nurse that the patient had an incident of Autonomic Dysreflexia and how it was resolved.	

SCENARIO #5: PROGRESSION OUTLINE (APPROXIMATELY 20 MINUTES)

Timing	Manikin Actions	Expected Interventions	May use the following Cues
5 min	Manikin lying on bed.	Nurse provides patient teaching regarding the concept of pokilliothermism.	
10 min	Manikin lying on bed.	Nurses teach Patient and his mother about I&O catherizations. They demonstrate the process and respond to questions appropriately.	Patient: "This is kinda of embarrassing having you Mom watch someone stick a tube in your penis."
5 min	Manikin lying on bed.	Nurse explains the purpose of heparin Tx and bleeding precautions. The nurse demonstrates how to give a SQ injection.	

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Based on antidotal comments, we feel that the simulations give the students realistic “hands-on” experiences that they would not have experienced in the traditional clinical setting.

Discussion

Following each simulation, a debriefing session is held with the entire group.

This is valuable teaching time and is a very significant part of the overall simulation experience. We discuss what did happen as well as what should have happened. Students assemble in the conference room and those who critiqued the scenario share their observations regarding what they feel went right and what went wrong. Students who participated as nurses in the scenario have the opportunity to express the fear and frustrations they experienced as well as to “toot their own horn” when they were able to demonstrate accurate assessments with timely and proficient interventions. Debriefing can be used to discuss cognitive deficits, psychomotor skills, use of psychosocial support and use of resources/referrals.

We have not developed evaluation tools to formally assess the effectiveness of the SCI simulations on student learning. Based on antidotal comments, we feel that the simulations give the students realistic “hands-on” experiences that they would not have experienced in the traditional clinical setting. Several students have commented that they will never forget the signs and symptoms of autonomic dysreflexia nor will they forget the appropriate nursing interventions.



Faculty member, Deanna Persaud, debriefing students after scenario

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LEADERSHIP CIRCLE

The Challenge for Today’s Nurse Managers: How to Be Fiscally Competent & Efficient While Nurturing the Workforce and Sustaining Self

Joy Bailey, RN, MSN, CRRN, BC

Nurse Managers face tremendous challenges in leading the culturally and demographically diverse workforces that they encounter in today’s healthcare environment. They play a vital role in maintaining a wholesome and stable work and caring environment for both nurses and patients, therefore the wellbeing of the nurse manager is arguably essential for sustaining a nurturing, supportive and productive workplace. An understanding of stress and how it relates to manager engagement and job satisfaction may provide the foundation for developing interventions that “help make the nurse manager role attractive as a career option for future managers and more satisfying for those currently in the role” (Shirey, 2004). This article will highlight content and findings from some of the publications on stress and coping as it relates to nurse managers, and the state of the science with regard to this important though relatively scantily researched area of nursing.

A review of literature related to stress and coping in nurse managers was published in 2006 by Maria Shirey. Her findings indicate that, while there is much focus on stress in the healthcare industry generally, and on staff nurses in particular, there is a paucity of literature that explores this important area of concern which perhaps underpins the fabric of nursing and affects the socio-psychological dynamics of the profession. The researcher states that “nurse managers play an integral role in creating the healthcare environment and in modeling the way for staff nurses” and that “minimizing nurse manager stress and enhancing nurse manager coping behaviors are consistent with retaining both nurse managers and staff nurses.” We might

agree that this is self evident and that consequently healthcare organizations might want to invest in establishing systems which encourage and sustain wholesome environments for nurse managers. However, perhaps nurse

managers might ask themselves whether they have the ability to acquire and master the skills necessary to function within the stressful care environment with equanimity.



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With the 21st century came the focus on stress in the context of a demanding work environment, nurse shortage, expanded and increased areas of control, and job satisfaction and organizational commitment.

Shirey’s paper revealed some interesting findings about the evolution of research on the subject of nurse manager stress. The focus during the eighties and the beginning of the nineties was on stress associated with physician relationships. Research in the nineties emphasized the challenges that nurses encountered with the transition from the traditional “head nurse” role to that of “nurse manager” with fiscal as well as operational responsibilities for assigned areas. With the 21st century came the focus on stress in the context of a demanding work environment, nurse shortage, expanded and increased areas of control, and job satisfaction and organizational commitment. Shirey also writes that “coping strategies appear to center on the possible acceptance of stressors rather than proactive management of stressors and tend to be increasingly emotion-focused rather than problem-focused” (page 193). This is coupled with the apparent lack of understanding of how to proactively manage stress.

Defining stress

Judkins, (2004) uses a Folkman & Lazarus description of stress as “transactional relationships between individuals and their environment” that tax or exceed their resources and endanger their wellbeing. Stress, according to this writer, involves stressors [objects and events] as well as stress reactions [responses, both

physiological (flight, fright syndrome) and psychological (anger, fear, guilt, sadness)]. Healy and McKay (2000) also utilize the Folkman and Lazarus model to define stress for their study of stress in Australian nurses. They state that in this transactional model “stress is experienced when situations are appraised as exceeding one’s resources. Stress therefore might be defined as one’s inability to cope with the vicissitudes of daily life; events viewed as threatening or overwhelming to one nurse manager might be considered only a challenge by another. This brings us to the concepts of hardiness and resilience.

Stress as it relates to hardiness and resilience

In her 2004 paper, Judkins examined the concept of hardiness and its relation to the ability of nurse managers to control stress. Hardiness allows one to view events and encounters as challenging opportunities, wherein one has control and can determine outcomes, rather than view oneself as a victim. According to Judkins, hardiness has three components.

- The hardy individual is committed to involving rather than alienating self from the activities of life.
- The hardy individual has a sense of control over his/her future and feels that he/she has influence through the application of knowledge, skill and choice.

- For the hardy individual, change is challenge (the third component of hardiness) and challenge is stimulating rather than threatening; change for the hardy is normal and is opportunity for growth.

Persons who are resilient tend to handle stress on the job with equanimity and optimism. The dictionary definition is “the capability of a strained body to recover its size and shape after deformation caused by compressive stress” or “an ability to recover from or adjust easily to misfortune or change.” For Tusaie and Dyer (2004) resilience is important for coping with stress. They suggest that “individuals who experience disruption from stress but then use personal strengths to grow stronger and function above the norm are considered resilient.” Resilience combines abilities and traits that “interact dynamically to allow the individual to bounce back, cope successfully and function above the norm in spite of significant stress or adversity” (p.3). Tusaie and Dyer (2004) discuss early studies that describe components of resilience. These are intrapersonal and environmental factors which include cognitive factors of optimism, intelligence, creativity and humor. Certain competencies such as above average coping strategies, social skills, educational abilities and memory also contribute to resilience. Judkins’ research, (2004) concluded

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that low levels of stress are positively associated with high levels of hardiness, and that high hardiness strongly predicts low stress levels. The corollary is that increasing hardiness in managers may better equip them to deal with the stress that accompanies the nurse manager role.

But it is necessary to note that cultivating hardiness and teaching stress management techniques are quite different concepts; one strategy may be helpful, the other might not. Healy & McKay (2000) found that it might be more appropriate and beneficial to modify and improve working conditions rather than focus on stress management concentrating on individual coping strategies.

Dealing with issues of workload and staffing would perhaps decrease stress levels as well as increase job satisfaction and nurse retention.

Nurse Managers and stress

Zangaro and Soeken (2007) propose that manager leadership style may affect the level of job stress and job satisfaction for the nurses that they supervise. This may parallel the concept of *absence of response* described by Olofsson, Bengtsson and Brink, (2003). These researchers, who examined how nurses experience stress at the workplace, speak of the concept of absence of response as it affects stress in the workplace for nurses. They found that nurses were

negatively affected by the absence of a supervisor who listened and was sensitive to employees' stress signals. Among other manifestations of this phenomenon was the statement by the nurses interviewed that "feelings of not being acknowledged by supervisors" were expressed as negative stress by all. They suggest that "informative support" from supervisors is important whereby they listen, advise, support, and provide emotional feedback to those whom they manage (p.356). It is apparent therefore that nurse managers are faced with consistently trying to manage their own stress as well as supporting employees and minimizing elements in the environment that contribute to the job stress that everyone experiences.

Shirey (2004) examined the importance of *social support* in the workplace as it effects nurse managers. She defines social support as "the assistance and protection given to others, especially individuals" with three major themes, empowerment, and job strain and motivation. She emphasized the relationship between social support and stress, that emotional hardiness can be taught, and that too much social support can be detrimental. In this literature review, few studies were found that measure the effects of social support in nurse managers. In a Swedish study of work stress in nurses and physicians in management positions, Lidholm



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In a Swedish study of work stress in nurses and physicians in management positions, Lidholm (2006) also mentioned the importance of social support as an important coping resource which may modify the impact of environmental stress in the workplace.

(2006) also mentioned the importance of social support as an important coping resource which may modify the impact of environmental stress in the workplace. Also of interest in this study was the finding that only one-third of the nurse managers investigated had participated in some sort of leadership program, although the increased demands made of nurse managers in today's environment underscore the importance of leadership training for effectively functioning in this important role and mitigating the stress factors. Judkins (2004) comments that although administrative competencies have significant effects on customer relations, despite high levels of personal achievement many nurses come to the role of manager with few or no managerial skills. Greater attention to preparing individuals for management may reduce both their stress and that of the employees they supervise.

Summary

While much attention has been given to the effects of stress in the work environment on staff nurses, very little has been published that focuses on the relationship between stress and job performance of nurse managers. The evidence supports the idea that there is significant relationship between stress and job satisfaction and engagement among nurse managers. Nurse Managers shoulder major responsibility for the stability of the work and healing environment, and therefore their wellbeing is of paramount importance. Most of the more recent publications on nurse manager stress have come from studies in Britain, Europe, Canada and Australia, and may not be readily applicable to the US. The time is ripe for organization leaders and academics to develop research initiatives in the area of stress and coping in nurse managers in the US health care environment. In addition, Shirey, (2004) found that of nine studies reviewed, the staff nurses were predominantly white females in acute care hospitals. We also need to further explore stress in terms of race, gender, culture and ethnicity as well as look at specific areas of practice such as specialty hospitals and other variations of nursing practice.

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INNOVATION STATION

Transforming Care at the Bedside

Andrea Walker, RN, MSN and Barb Lawrie, RN, MSN, CRN

Imagine this: during a hospital stay for a routine procedure you see pictures of your nurse, physician, physical therapist, and nurses’ aides— everyone on your care team— on a white board across the room. And on your bedside table you find a small notebook called “Questions about My Care” that suggests good questions to ask your doctor when she visits. And on the day you leave the hospital, the nurse gives you a write-up about your hospital visit — what they did to you while you were there and why, what the tests found, what comes next, and what it all means about your health status. It’s nothing technical; more of a story about your stay in the hospital that’s simple enough to explain to your family and friends.

Such personal touches may seem a far cry from standard hospital experiences, but these are real examples of changes in patient care being implemented by a handful of progressive hospitals that are part of a national initiative called Transforming Care at the Bedside (TCAB). (Institute for Healthcare Improvement, 2008)

Providence Health Care (PHC), in Vancouver Canada, along with about 40 other health care organizations across North America, is partnering with The Institute for Healthcare Improvement (IHI) to engage in an exciting project called Transforming Care at the Bedside (TCAB). The initial pilot project is on a geriatric medical surgical unit in a large acute care hospital in downtown Vancouver, St. Paul’s Hospital (SPH). The plan, in keeping with the IHI and TCAB philosophy is to spread successes once they have been evaluated. The project has four major themes and related targets that guide the redesign of care.

1) **Safe and Reliable Care:** Care for hospitalized patients is safe, reliable, effective, and equitable.



Example of target: codes on medical and surgical units are reduced to zero.

2) **Staff Vitality and Teamwork:** Within a joyful and supportive environment that nurtures professional formation and career development, effective care teams continually strive for excellence.

Example of target: voluntary turnover for nurses is an average of 5% or less per year.

3) **Patient-Centered Care:** Truly patient-centered care honors the whole person and family, respects individual values and choices, and ensures continuity of care.

Example of target: 95% of patients are willing to recommend the hospital.

4) **Value-Added Care:** All care processes are free of waste and promote continuous flow.

Example of target: nurses spend at least 70% of their time in direct patient care.

The acute geriatric unit at SPH will initially focus on the value-added care theme.

This unit has had its initial training and is ready to begin looking at testing new ideas to increase the amount of time they spend with their patients.

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The project is based on the philosophy of staff engagement and empowerment in the redesign process. Staff recommend and implement changes using rapid PDSA cycles (Plan-Do-Study-Act), evaluating and making continuous improvements.

The goal of TCAB is not to adjust elements within the current system, but rather to transform all elements that affect care – care-delivery processes, nursing care models, physical environments, organizational cultures and norms, collaboration, and performance.

A central principle behind the TCAB project is the link between the quality of care patients receive and the work environment in which their caregivers function. Support for the initiative is a response to growing concerns over the crisis in nursing. The human and financial costs to hospitals and society at large, of the high turnover and low retention rates in nursing.

More broadly, TCAB is addressing fundamental health quality issues: the need to reduce errors, enhance organizational efficiency, adapt to constant industry changes, and maintain financial viability. The initiative was designed to draw on IHI's experience in mobilizing teams of frontline workers to make significant changes toward these goals, as well as its expertise in health system redesign.

The vision for a new model of bedside care evolved during 2003 in a series of design initiatives by a team of planners from IHI and the Robert

Wood Johnson Foundation (RWJF). A key component was an intensive three-day brainstorming session, modeled on an innovation methodology called a "Deep Dive." The Deep Dive teams generated hundreds of ideas for how to enhance bedside care.

The four main themes of TCAB – Safe and Reliable Care, Vitality and Teamwork, Patient-Centered Care, and Value-Added Care Processes – are guided by the Institute of Medicine's aims for care. These categories serve as a framework for organizing and focusing this work, but they are not mutually exclusive; working in one area can produce positive change in another.

IHI believes that only by working in all four categories simultaneously will care teams produce truly transforming results that move care closer to TCAB's broader targets:

- Adverse events are reduced to 1 (or less) per 1,000 patient days
- 25% reduction in deaths on the TCAB unit
- 95% compliance with all key clinical process measures (all-or-nothing measure) for the three top clinical conditions on the TCAB unit
- 95% of clinicians, students, and staff say, "I work within a supportive environment that nurtures my professional formation and development"
- 95% of clinicians, students, and staff say, "I am part of an effective work team that continuously strives for excellence even when the conditions are less than optimal"

- 95% of patients are willing to recommend and are satisfied with physical comfort, emotional support, and respect for their values and preferences
- Clinicians spend 70% of their time in direct patient care
- Clinicians spend 90% of their time in value-added activities

Although PHC is focusing on only one theme to begin with, the plan is to have spread to the other themes. To date TCAB has only been implemented in acute medical/surgical units. PHC plans to look at opportunities in both their residential care sites as well as their Rehabilitation Hospital.

Andrea Walker, RN, MSN is the Project Leader for TCAB and is responsible for implementing and spreading TCAB across Providence Health Care, Vancouver, British Columbia, Canada

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PEDIATRIC PERSPECTIVES

How to Make a Difference in Functional Outcomes of Children with Spina Bifida

Debbie Sullivan, MSN, RN

When thinking of spinal cord injury we typically think of a trauma related diagnosis. However, also included in this area of nursing are clients born with a spinal injury that occur during the gestational process, such as spina bifida. Nurses are at the forefront of caring for children and adults who are faced with problems associated with spina bifida. These various problems will be discussed in detail along with supportive evidence. With an understanding of this disorder and common associated problems, nurses are in an ideal position to promote positive functional outcomes.

History

Prior to 1960, as few as 10% of babies born with spina bifida, survived infancy. These deaths were mostly due to infection and hydrocephalus. In 1960 survival rates were increased with the advent of the ventriculo-peritoneal shunt to drain excess cerebral spinal fluid from a brain ventricle to the abdominal cavity. By 1963 survival rates increased to 60% and by 1973 survival rates were at 90%. Since that time we have aggressively treated these patients to reduce mortality and morbidity. However, spina bifida's influence on disability is often overestimated and short-lived (Oakeshott, Oakeshott, & Hunt, 2003).

Spina Bifida Review

In classifying spina bifida, different authors use various classification systems. Generally speaking, spina bifida is classified by the vertebra associated with the lowest functioning sensory or motor level of the spinal

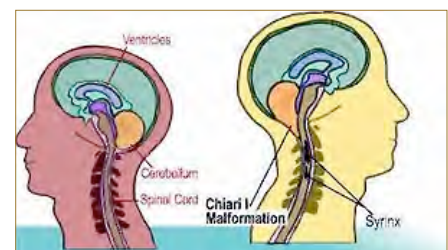
cord. It is not characterized by the level of the lesion because the congenital anomaly is often dynamic and patient capabilities and requirements change over time. The extent and degree of the neurologic deficit depends on the level of the myelomeningocele insult. Typically, higher lesions are associated with a more severe neurologic deficit. Patients with lower lesions are less likely to develop hydrocephalus and more likely to maintain ambulation. As reported by Hunt and Poulton (1995), mortality is highest in the first year of life and remains a high probability through 4 years of age. In a 28 year follow-up study of 117 patients, Oakeshott and Hunt (2003) found that the mortality rate is about 1% per year after age 15 and the median survival is about age 30.

Health Problems

These clients have multiple health problems that nursing should consider; some of which will be discussed in areas of neurology, urology, orthopedics, skin, and obesity.

Neurology. One of the more common neurological complications is Type II Chiari malformation. The medulla oblongata, posterior cerebellum, and fourth ventricle are displaced through the foramen magnum which causes obstruction of spinal fluid and leads to hydrocephalus. Most patients (80%) with spina bifida develop these Chiari type II malformations and the associated hydrocephalus. They usually require ventriculoperitoneal shunts to drain the cerebral spinal fluid (CSF).

Chiari Malformation



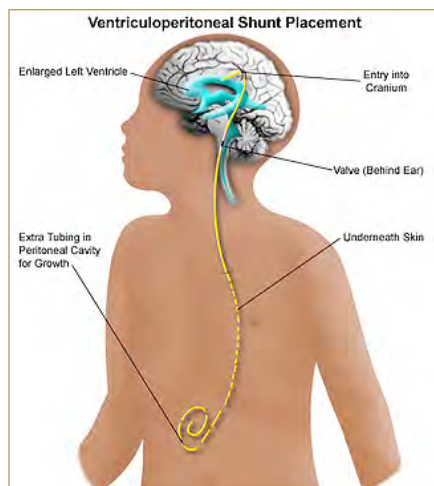
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These shunts often require shunt revisions due to childhood physical growth, blockages, and infection. Tulli,

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Drake, and Lamberti-Pasculli (2003) did a study where 189 patients with myelomeningocele had following results:

Ventriculoperitoneal Shunt Placement



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- Median time to shunt insertion – 6 days
- Median time to first failure – 303 days
- Mortality over 10 year period – 15/189 (8%)
- 120/189 (64%) experienced shunt failure
 - 70% due to obstruction
 - 24% due to shunt infection
 - 62/120 (52%) had at least 2 failures
 - 38/61 (62%) had at least 3 failures
 - 25/36 (69%) had 4 or more failures

This study illustrates that shunt failures are very common. Symptoms of shunt malfunction are headaches, fever, drowsiness, and/or seizures. Shunt complications can have an adverse effect on cognitive abilities, increased mortality, and result in higher incidence of visual defects and seizures. Mental retardation is more common in patients with seizures. These problems are a significant predictor of long term outcome.

Cognitive difficulties are common in patients with hydrocephalus and shunts. Patients with shunts often have a significantly lower IQ tests in comparison to siblings. School performance may also be adversely affected by low self-esteem and maladjustment with peers. Steinbok, Irvine, Cochrane, and Irwin (1992) showed that in 83 patients with average age of 13.4 years had the following results: 58% were in an age appropriate grade, 23% had learning difficulties, and 40% were in special education classes. Bowman, McLone, Grant, Tomita, and Ito (2001) looked at 71 patients with average age 21.7 years 36% were in high school or graduated, 49% in college or graduated, 23% in special education classes.

Tethered cord is another neurological complication which occurs because of the closure of myelomeningocele sac which can lead to scarring and subsequent tethering of the spinal

cord. The symptoms to look for include back pain, radiating lower extremity pain, lower extremity weakness or spasticity, progressive scoliosis, foot deformities (equinus, equinovarus), changes from previous neurologic exam, and bowel/bladder changes. Recent studies of adults show a rate of 13-32%. Sarward, Weber, Gabrieli, McLone, and Dias (1996) studied 30 patients postoperatively who had undergone surgical detethering. He found that all their back pain had resolved and 60% had stabilization or improvement of scoliosis, 78% had stabilization or improvement of lower extremity weakness and 43% had improvement of spasticity.

Urology. Bladder paralysis has associated medical and social problems. This is a significant source of health and disability issues. Medical problems can result in hydronephrosis, urinary obstruction, renal calculi, urinary tract infections, hypertension, and fulminant renal failure. These complications are a leading cause of mortality throughout their life. Nursing has seen major improvements in treatment since the 1970s which have improved morbidity. Clean intermittent catheterization (CIC) is the main technique today. Those who use CIC have a higher level of incontinence and cystitis, but have a much lower incidence of renal dysfunction, pyelonephritis, and stones. Important social issues for

Spina bifida, by definition, means that the client (child or family) must face challenges related to indecency and dependency, self-care and mobility.

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the patient with CIC are independence and self-care (Bomalaski, Teague, & Brooks, 1995).

Orthopedics. Maintaining ambulation is not the goal in all patients. Quadricep muscles (function at the level of fourth lumbar space [L4]) is of key importance in regards to ambulation. Children with functional level of L4 or below will maintain ambulation. If functional level is at the third lumbar space (L3) and above, most will not maintain ambulation. Additional factors that lead to non-ambulation are obesity, scoliosis, foot and ankle deformity, and age. The status of the hip does not correlate with the ability to walk. The Hoffer Functional Ambulation scale is used to report ambulation ability.

- **Community ambulators (CA)**
 - Able to walk indoor and outdoors, with or without aids, may use wheelchair for long distances
- **Household ambulators (HA)**
 - Able to walk indoors only with crutches or braces, wheelchair for some indoor and all outdoor activities
- **Non-functional ambulators (NFA)**
 - Able to walk in therapy sessions only, wheelchair used for all transportation
- **Non-ambulators (NA)**
 - Wheelchair bound, but often able to transfer

Some of the benefits a nurse could see from getting these children to ambulate are upper extremity strengthening, protection against obesity, improved bone density, sense of accomplishment, decreased fractures, and decrease pressure ulceration.

For children with thoracic and upper lumbar level function their arms become the power producers. They may have limited motor function across hip joint but no sensation below groin. There are orthosis to aid the limited hip control with hip crossing. Most discover that wheelchair is a more efficient means of transportation.

When the function is at middle and lower lumbar area, these children have a weak medial hamstring which acts as leg extensor. The problem is that they can develop knee flexion contractures and eventually hip dislocation. Aids for this group are ankle foot orthotics (AFO's). Normally these children abandon walking for wheelchair as adults. Surgery will delay conversion to wheelchair ambulation. Because these children grow, an important nursing intervention is to assess the skin and circulation in the area of the orthotic device, especially AFO's.

Sacral level function allows for more force to move forward which is greater

than the muscle contraction needed for control of the joint. Because of this force walking is possible but difficult. There is a high energy cost required to achieve and continue meaningful ambulation.

Skin. Spina bifida kids are prone to pressure sores, especially in the buttocks, sacral areas, and feet. This problem is due to invariable loss of their protective sensation. The risk is increased with patients who are wheelchair bound, have kyphosis, incontinence, pelvic obliquity, and decreased foot flexibility.

Obesity. Due to lack of exercise obesity is a common problem. Obesity also leads to further morbidity. It makes it more difficult to ambulate or transfer and more susceptible to pressure sores. It could also cause decreased self-esteem and reduced quality of life. Nursing can intervene by either implementing a teaching plan or referral to a nutritionist or physical therapist.

Team Approach

Nurses attend to clients' holistic needs, which provide opportunities to optimize well-being through a systemic approach. Spina bifida, by definition, means that the client (child or family) must face challenges related to indecency and dependency, self-care and mobility. There is also a need

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for the appropriate teaching of family members as well as support for family members. To meet these challenges a team effort has been found to be the best approach. Members of the team should include a care coordinator (nurse), pediatrician, neurosurgeon, urologist, orthopedic surgeon, dietician, psychiatrist, occupational therapist, physical therapist, orthotist, child life, teachers, and social worker. Kaufman, Terbrock, Winters, Ito, Klosterman, and Park (1994) did a study to evaluate the team approach for spina bifida patients. A multidisciplinary clinic was disbanded and after 3 years, 87 patients from this clinic were interviewed. The patient, family or local physician had not assumed the role of care coordinator. Of those 87 patients, 66% failed to have regular medical and specialty care. There were 9 decubitus repairs, 1 amputation, 2 nephrectomies, 18 shunt revisions, and 7 other proactive” procedures. The study compared this group to a matched control group from an ongoing clinic that took a

multidisciplinary approach. The results were far better; 1 decubitus repair, 0 amputations, 0 nephrectomies, 45 shunt revisions, and 46 other “proactive” procedures.

Conclusion

Spina bifida is a complex, multisystem, and dynamic condition. Treatment requires teamwork, foresight, and diligence. Despite the pitfalls and handicaps, many patients can and do lead productive and active lives.

You can make a difference in functional outcomes with spina bifida patients by being aware of the common problems described. Being proactive to provide preventive care which includes careful assessment of skin, pain, and signs and symptoms of infection or hydrocephalus. You can promote of clean intermittent catheterization and ambulation when appropriate. Most importantly it takes a team approach to offer holistic care to these very special people as we learn more about their unique needs.

Author, Debbie Sullivan, MSN, RN, is an Assistant Professor at Middle Tennessee State University, School of Nursing, in Murfreesboro, TN.

Lynn C. Parsons, DSN, RN, CNA-BC is a Professor and Director of the MTSU School of Nursing, in Murfreesboro, TN. She is a member of the AASCIN Board of Directors and serves as Treasurer and Editorial Board Liaison. Lynn served as acting editor of Pediatric Perspectives for this issue. She may be contacted at lparsons@mtsu.edu



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RESEARCH CORNER

Apples Or Oranges: Is My Questionnaire Congruent With My Theoretical Design?

Matthew R. Sorenson, PhD, RN

In the conduct of research, one has to make several decisions regarding how the construct of interest shall be measured. For physiological studies, measures are often straightforward and immediately apparent. Studies using psychological variables have several methodological choices from both the qualitative and quantitative perspectives. Those interested in quantitative approaches often have a number of measurement tools and instruments from which to choose. Generally when deciding on an instrument, the known reliability and validity are important concepts. However, in the midst of discussions regarding content, discriminate and convergent validity it is possible to overlook another important aspect of measurement validity. That is, the match of the tool to the theoretical design of a study.

In the midst of study preparation, it can be easy to select a tool more for its apparent predominance within the literature without really looking into how the instrument reflects a shared or differing vision, of the construct to be sampled. For example one can look through the coping literature and find several well known and established instruments. Some come from a more cognitive psychological approach, while another well known measure reflects a more psychodynamic approach. Each approach makes several assumptions about the nature of coping, and its evaluation: assumptions that are reflected in the design of each instrument. If an investigator is merely looking for an established measure, either would serve. However, the chosen tool may not reflect the theoretical or conceptual model of the investigator or of the study. It is then imperative to closely investigate each measure for conceptual congruence with the proposed study. Using a tool that is not congruent with the theoretical or conceptual model of

the study can leave the researcher with a slightly different set of data than was intended. Data that may be manifesting something different than anticipated.

A similar question could be posed in clinical settings. There are several measures of disability that could provide information regarding disease progression or functional limitations. Several hospital systems have begun to use such questionnaires in the clinical setting to provide valuable information regarding clinical progress and to assess for the presence of other conditions. Yet, some of these measures are more focused on particular aspects of function than others. For example, in working with those with multiple sclerosis, one has the choice of the Expanded Disability Status Scale (EDSS), the MS-Related Symptom Checklist (MSSC) or other measures. The EDSS is heavily focused on ambulative ability, while the MSSC is a self-report symptom measure that reflects differing definitions of disability.

Conclusion

The design of a measure reflects more than a theoretical conceptualization of the construct of interest. It also reflects how well the designer has been able to bring that vision into life. Evaluating an instrument for study requires consideration of these elements. This area blends aspects of content validity along with elements of discriminant and convergent validity. Information from these areas can help identify whether a measure is appropriate for inclusion in a study. What is also important is that one has a clear conceptualization of the construct for the investigator's behalf and a careful consideration of whether a particular measure reflects that conceptualization.

Matthew R. Sorenson, PhD, RN is an Assistant Professor at DePaul University in Chicago, IL. As editor of the Research Corner, he welcomes your questions, comments and suggestions. Contact Matthew at msorenso@depaul.edu



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AGING WITH SPINAL CORD INJURY

Getting Ready for the Unexpected: Disaster Preparedness

Angela Starkweather, PhD, ACNP-BC, CNRN

Those who have experienced an SCI already know the drastic changes that life can bring, the often instantaneous moment when one is forced to carry on in a new way. Following SCI, individuals and their families or caregivers learn how to adapt and make the modifications necessary to retain quality of life. For the aging individual with SCI, additional obstacles may surface, such as maintaining financial security, obtaining needed resources, and preserving physical and mental health. When natural or human-made disasters strike, the challenges of living with SCI are magnified. However, SCI nurses have an opportunity to change this situation through three important means: dissemination of disaster preparedness information, participation in local and national planning, and encouraging and assisting individual/family preparation.

The dissemination of information starts with federal, state, and local government agencies, however, we also play a big role in this aspect by encouraging our patients, co-workers, friends and neighbors with disabilities to become well versed in disability laws related to disaster relief, to access the resources currently available, and become involved in community emergency/disaster planning. Historically, there has been an observable disconnect between those who have the resources to get to safety and those who do not during disaster situations. The occurrences of 9/11 and Hurricane Katrina demonstrated to the nation not only the lack of planning that we had for dealing with massive emergency ventures, but the unfortunate status of our ability to care for our most vulnerable citizens. These two historical incidents provided impetus for re-evaluating the ways of handling

disaster situations, including the procedures and resources for those with disabilities.

In 2004, an Executive Order was issued by President Bush entitled, "Individuals with Disabilities in Emergency Preparedness." This document established the responsibility of the Interagency Coordination Council on Emergency Preparedness and Individuals with Disabilities to coordinate the development of emergency preparedness planning for employees and customers with disabilities across all government agencies (www.hhs.gov/od/emergency.html). This was a first step in formalizing a process of disaster planning that recognizes and integrates the unique needs of individuals with disabilities in disaster relief efforts. In 2005, the National Council of Disability published their document, "Saving Lives: Including People with Disabilities in Emergency Planning", which describes the

experiences of those who have been through natural disasters and the often abysmal preparation in having adequate equipment, transportation and housing resources. It outlines the steps that need to be taken in order for the Federal Government to build an infrastructure capable of supporting the various needs of people with disabilities in disaster preparedness, disaster relief, and homeland security programs. Their recommendations include an infrastructure that allows access to technology, physical plants, programs and communications.

As recommended by the National Council of Disability, the best way for us, as a society, to ensure that people with disabilities have the information systems, equipment and resources in times of disaster is to get them involved in the planning process. This allows dialogue about the needs of people with disabilities in an emergency situation, and how the community can help them attain those

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needs. For some resources, the needs are universal, such as communication systems; however, they may need to be tailored to specific populations, such as those who are blind or deaf. Determining the choice of which communication system to use must be made so that all citizens can use and benefit from it. By participating in disaster planning activities, the issues faced by people with disabilities can be integrated into the community response plan.

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) released a reference guide in August 2007 outlining the legal requirements and standards related to access for people with disabilities. This

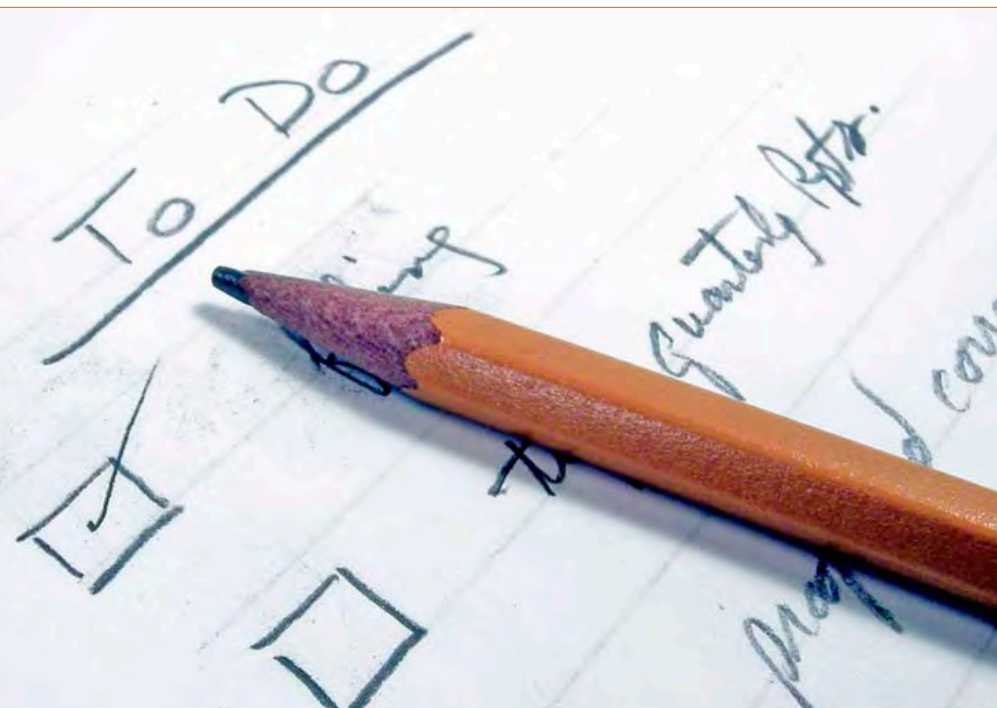
document entitled, "A Reference Guide for Accommodating Individuals with Disabilities in the Provision of Disaster Mass Care, Housing and Human Services" may be accessed at www.fema.gov/oer/reference. It is a valuable resource for government agencies, local communities, and organizations to use in disaster planning. Many other resources designed by governmental and independent agencies have come into play in terms of getting individuals/families prepared for disaster scenarios. Many of them are freely available and can be included in patient education materials.

Following the Executive Order of 2004, the Interagency Coordination Council on Emergency Preparedness

and Individuals with Disabilities developed a website called Disability Preparedness.gov (www.disabilitypreparedness.gov). It includes information on the laws that were created to ensure equal access to disaster preparation resources and disaster relief services for persons with disabilities. The website also has information on developing a personal plan, disability- and disaster-specific preparedness, assistive technologies, and work-related preparedness. Ready America was also created to disseminate information to individuals and businesses (www.ready.gov/america). It includes information on individual and family emergency evacuation planning, how to develop an action plan, and how to remain informed during disasters.

Community Emergency Preparedness Information Network (CEPIN) was coordinated by TDI (Telecommunications for the Deaf and Hard of Hearing) and administered by the U.S. Department of Homeland Security. This project includes a website to promote awareness in emergency preparedness activities both locally and nationally, information on disaster preparedness with many accessibility features (text version that can be used with large print technologies or screen readers), and a schedule of workshops around the nation that are taking place (www.cepintdi.org).

The Center for Disability and Special Needs Preparedness (DPC) developed



However, for the individual aging with SCI, preparation is an essential topic that should not be ignored.

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disaster readiness guides for individuals and organizations to use in planning (www.disabilitypreparedness.org). The guides include ways to measure current preparation and ways to build preparedness into everyday activities. The guides are available for a charge. They also offer on-site training and interactive seminars.

The American Red Cross (www.redcross.org/services/disaster) recently updated their resources, including Preparedness Information for Seniors and People with Disabilities (http://www.redcross.org/services/disaster/0,1082,0_603_,00.html). Their booklet, coauthored with the Department of Homeland Security, provides specific forms to organize medical and emergency information, as well as information on developing an individual preparedness plan. The resources can be downloaded and are free of charge.

Besides accessing these sources of information, people with SCI should be encouraged to contact their local emergency personnel, as many agencies have a database of those with special needs that need

to be addressed during crises (such as including wheelchairs during an evacuation). These databases can be used to ensure that the proper equipment is transported with the person, to implement a communication system during evacuation, and to help organize disaster relief efforts.

Thinking about and planning for a crisis situation is not a comfortable or easy task. Engaging your patient in this process may be enhanced by asking them to develop a plan along with a friend, family member or caregiver, and then following up on their progress during subsequent visits. Although it does take some time, learning how to be prepared can help to strengthen a sense of control over unexpected events that occur. In addition, the personal planning experience, which relies on social networks and resources, may also provide opportunities for evaluating the patient's connections with other people and agencies. Disaster preparation is an important topic that has the potential to affect each of us. However, for the individual aging with SCI, preparation is an

essential topic that should not be ignored. By providing the information and encouragement to participate in individual/family as well as community planning, you are giving them the tools they will need to face the unexpected, and minimize the obstacles in dealing with disasters.

Angela Starkweather, PhD, ACNP-BC, CNRN is an Assistant Professor at Virginia Commonwealth University School of Nursing. As a member of the SCI Nursing Editorial Board, she welcomes your comments or questions regarding the content of this article. She can be reached at astarkweathe@vcu.edu



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BOOK REVIEW

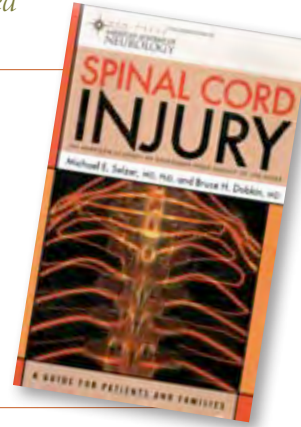
Spinal Cord Injury and the Family: A New Guide

Reviewed by: Jessie Dickerson, RN, MSN, CWON-AP, CFCN; Retired

Spinal Cord Injury and the Family: A New Guide

Albert, Michelle J., and Wisnia, Saul (2008).

Cambridge, Massachusetts and London England,
Harvard University Press, ISBN: 978-0-674-02715-2,
338 pages, \$16.95.



Dr. Michelle Albert and her husband Saul Wisnia have combined their gifts and talents to bring forth this amazing informative book. This is an excellent resource to guide to individuals with spinal cord injury (SCI) and their families in coping with the many challenges one must face on a daily basis with this traumatic injury.

The authors begin with an introduction to SCI and the sudden devastation it can wreck on both the individual, and the family. While the SCI patient works to overcome the multiple challenges he or she must face, Dr. Albert shares experiences she has had working with and treating patients with SCI. She combines stories of her patients to help the reader more fully understand that people with SCI and their families can continue to live meaningful lives filled with personal satisfaction, social,

and vocational achievements. The authors point out that life is far from over for individuals that experience a SCI. They point out that these individuals are still somebody's son or daughter, mother or father, friend or lover, colleague or co-worker. Paralysis does not take away or diminish these special and significant roles.

In this book, Spinal Cord Injury and the Family, the authors have shown that SCI patients who learn to live and adapt to their new circumstances and focus on what they can do rather than dwell on what they can't, are more likely to be successful within their families, communities, and society at large. This book is a must read for individuals with SCI that are newly injured or have completed rehabilitation, or for the couple who is wondering how they can perform sexually with the same enthusiasm and spark.

The authors do a superb job in covering the causes and prognosis of SCI through case studies. They review common phases of rehabilitation, and answer the "what now?" pertinent questions. They go on to explore the larger issues of sex, education, employment, childbearing, and parenting with spinal cord injury.

Spinal Cord Injury and the Family provides a comprehensive overview of how SCI affects the individual as well as that person's family and friends. It is a rich source of current information for those impacted by SCI, along with practical advice for managing the many challenges one with SCI is faced with on a daily basis. Armed with the information and resources listed in this book, individuals with SCI and their families can learn what they need to know to lead full and productive lives after spinal cord injury.



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ABSTRACTS FROM SELECTED LITERATURE

Orthostatic Hypotension Following Spinal Cord Injury: Understanding Clinical Pathophysiology

Reviewed by: John Morawski, RN, BSN, CRRN

Orthostatic Hypotension Following Spinal Cord Injury: Understanding Clinical Pathophysiology. Spinal Cord 44, 341-351.

Claydon, V.E., Krassioukov, A., Steeves, J. D. (2006).

Injury to the spinal cord has catastrophic consequences that are both overt and subliminal. The obvious effects are what get the attention of the patients and the caregivers. These would include motor and sensation dysfunction. However, the covert effects of Spinal Cord Injury (SCI) have impact on many aspects of life and rehab for this population. Among the most significant and detrimental dysfunctions of SCI is the disruption of blood pressure control. The article being reviewed this month is a scientific review of this most covert of SCI effects.

This article, written in 2006, and is very comprehensive and contains highly technical and heavy in

physiology, however it is reasonably easy to follow and accurate. Furthermore, it covers a very important aspect of SCI physiology, which has implications on the a person's quality of life, rehabilitation, and long term health. The authors of this article cover normal physiology and clearly differentiate this with SCI physiology in respect to orthostatic hypotension. The authors then discuss the staggering prevalence of 74%. They also explore the multi-factorial mechanisms behind the dysfunction. These include sympathetic nervous system dysfunction, altered baroreflex function, lack of skeletal muscle pumping activity, cardiovascular deconditioning, and altered salt and water balance.

Thoroughly researched, this article provides a good review of the knowledge on orthostatic hypotension and is very worthwhile. Overall, this is an aspect of life for people with SCI that is still being explored. As a consequence, the management of this issue is somewhat limited. It is important for all professionals dealing with SCI to have a good understanding of this problem and its management. Like many of the overt aspects of SCI, this area needs more research so it can be managed with better efficacy.

John Morawski, BNS, RN, CRRN, is a SCI Nurse Educator at the Shepherd Center, Atlanta, Georgia. John is the editor of journal reviews column. Contact John at john_morawski@shepherd.org



**SELECTED ABSTRACTS FROM THE 2008
ANNUAL SCI CONFERENCE
Orlando, Florida**

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#3 War Aftermath: The Evolution of Polytrauma Rehabilitation

Laureen G. Doloresco, MN, RN, CNAA, BC; Steven G. Scott, DO

This session will offer medical and nursing perspectives on the rehabilitation of war-wounded patients with blast injuries. The types of multi-dimensional injuries and impairments that result from battlefield explosions will be discussed. An overview of VA's highly specialized polytrauma rehabilitation system of care will be presented as a prototype for providing comprehensive care for this complex and severely injured patient population. Current challenges and developments in the field of polytrauma rehabilitation and implications for spinal cord injury practice will be described.

#11 Non-chemical Bowel Program on Upper Motor Neuron Injury: Best Practice Based on Evidence

John J. Morawski, BSN, RN, CRRN

Conventional wisdom indicates that evidence should guide practice, and practice should produce supporting evidence. Because Shepherd Center's established method for digital stimulation is based on thirty-five years of anecdotal evidence, the SCI department formulated a plan to revise our guidelines for digital stimulation based on evidence from our current practice. The Consortium for Spinal Cord Injury Medicine's practice guidelines for performing a digital stimulation are based only on professional opinion. These guidelines have been longstanding, but variations in practice from hospital to hospital are prevalent. Furthermore, the literature continues to be bereft of solid evidence to establish proper procedure. In an effort to gather evidence and compare empirical data to our practice and the published guidelines, a new bowel flowsheet was designed. To perfect the flowsheet and include all disciplines we formed a team composed of nurses, patient care technicians, nurse educators, unit managers, a clinical nurse specialist, and physical

and occupational therapists. The result of this effort is a flowsheet built with indicators that can be used to collect evidence that guides our practice. The flowsheet also acts as a means of communicating therapy goals and patient follow through of those established goals as well as recording bowel results. Data collected from the interdisciplinary flowsheet proved to be of great value. The data was synthesized into an eight step procedure guide for digital stimulation that is clear, concise, and evidence-based. This presentation will chronicle the effort to bring more evidence to this very important aspect of our practice, and include the flowsheet itself. We will also discuss specific target areas within bowel management that should be researched further.

Shepherd Center's established method for digital stimulation is based on thirty-five years of anecdotal evidence.

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We have developed an educational program, which is relevant to all areas of rehabilitation nursing, to assess the knowledge, function, performance, and ability of the individual staff nurse on the spinal cord ventilator unit to complete bowel care safely and effectively.

#12 Teaching Staff to Manage Neurogenic Bowel

Tamera M. Corsaro, RN, BSN, CRRN; MaryAnn Getchell, RN, BSN, CRRN

The care of the spinal cord injured (SCI) patient is a specialized field requiring extensive skill acquisition beyond the nurse’s basic education. Neurogenic bowel management is a critical aspect of caring for the SCI population. The purpose of this paper is to describe the staff education program developed at Spaulding Rehabilitation Hospital in order to ensure competency in bowel management. We have developed an educational program, which is relevant to all areas of rehabilitation nursing, to assess the knowledge, function, performance, and ability of the individual staff nurse on the spinal cord ventilator unit to complete bowel care safely and effectively. We have expanded this tutorial throughout our facility to enhance the knowledge base of all nursing staff caring for patients with a neurogenic bowel in the rehabilitation setting. Specific concepts that will be addressed in this presentation are: implementation of a bowel-training program based on level of injury, utilization of adaptive equipment, effects/impact of medication, and nutritional status. The teaching goals of the program are to develop a method to establish regular bowel elimination and

habit time, management in fecal incontinence through establishment of fecal continence, and assistance in development of positive patient self-esteem.

#19 The Customer Satisfaction Conundrum: Strategies for Managing Patient, Family, and Caregiver Expectations in the SCI Rehabilitation Unit

Joy E. Bailey, MSN, RN, CRRN, BC

There is growing interest in the healthcare industry to attain and sustain high levels of patient satisfaction. Because of the nature and severity of spinal cord injuries, the increased length of stay, and the helplessness of most of the patients, the challenge can be exceedingly great to maintain customer satisfaction on a SCI rehabilitation unit. Nurse Managers of these specialty units are often confronted with the challenge of pleasing customers while maintaining high levels of staff engagement and satisfaction. Some studies have shown that hourly rounding in acute care hospitals contributes to increased patient satisfaction. A recent study on a dedicated spinal cord injury (SCI) unit found that this did not appear to apply to patients on that SCI rehabilitation unit. This paper will examine strategies for managing patient, family and staff expectations on a SCI rehabilitation unit.

#20 Whose Care Plan is it Anyway: Using Patient/Family Centered Care Model

Judi Behm, MSN, RN, CRRN

Persons who have experienced a spinal cord injury often struggle with feelings of loss of control. The principles of Family Centered Care Philosophy, when applied to assessment, goal setting and care planning, and pt/family education allows the person with SCI to be actively involved at all levels of care and decision-making. This presentation will address key principles of Patient/Family Centered Care, how to apply philosophy throughout the continuum of care, and discuss the benefits for patients, families, and staff outcomes.



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AASCIN Committee Reports

Lynn C. Parsons, DSN, RN, CNA-BC

Mary Ann Reilly, MS, RN

President's Report

It seems like only yesterday that we were in Orlando at the annual conference. Yet it was 4 months ago and 2009 is at hand. So much work has been done by the AASCIN Board of Directors and so much more work needs to be done before the 2009 conference begins in Dallas. The 2009 Congress on Spinal Cord Medicine and Rehabilitation will be

September 23-26, 2009 at the Sheraton Dallas Hotel. AASCIN, ASP, AAPSW and TLC have joined with ASIA to organize an outstanding conference for SCI and SCID professionals.

The Call for Awards has been posted on the web-site as well. Please take time to nominate a colleague. Nominations are due by Jan. 11, 2009.

AASCIN was fortunate to be bequeathed monies from the Hammond estate in Oregon, \$125,000 of unrestricted funds and \$20,000 of funds specifically for the educational growth of AASCI nurses in Oregon. The Board is formulating a plan to equitably distribute the funds to AASCIN members in Oregon.

PVA has notified the AASCIN Board that our Web site is up and running. Members can access the list-serve from the home page. [open the web page; click on the web board; enter user name and password; click on AASCIN list serve (left side of page). To Post, look to the right side of the page and click on the 'New Topic' button]. If you do not remember your username or password they can contact BrendaF@PVA.org.

The **Program Planning Committee** is looking ahead to the 2009 annual conference. The Call for Abstracts will not be mailed out this year. The call has been posted on the Web sites of PVA and the three respective organizations, APS, AAPSW and ASIA. Abstracts are due by Jan. 15, 2009. It is the AASCIN Board's hope that our members submit to this prodigious program.

The **Clinical Practice Committee** is planning on another Boot Camp in 2009. Attendance at the 1st Boot Camp was excellent and exceeded expectations. Planning for the 2nd Boot Camp is underway and it is anticipated that the Financial Development Committee will solicit grant funds to support this program.

The AASCIN treasurer in her role on the **Financial Development Committee** submitted a proposal to the Mike Utley Foundation [\$46,150] to support the 2009 annual conference. If funding is awarded the grant would support nurse speakers (keynote and feature) along with other conference related expenses. Another proposal will be written and submitted to PVA to further support the 2009 annual conference and the Boot Camp program.

The **Strategic Planning Committee** (SPC) is working diligently to get the business plan, by laws and budget completed for the Academy of Spinal Cord Professionals. The SPC is working to respect the integrity of the 3 associations and Therapy Leadership Committee. Once the details are confirmed each association will be bringing fourth the merger plan to their membership for a vote. The SPC is building a sound association with the dedication of devoted volunteers who wish to take the associations into the future.

The **Editorial Board** editor, Deanna Persaud has assumed the managing editor role since the transition to PVA from United Spinal. Barb Lawrie is a new member on the Editorial Board and will serve as column editor for Innovation Station. The board is looking to recruit a column editor for the Pediatric Perspectives column. Please contact the editor or associate editor of the journal if you are interested in this position.

The **Agging Committee** is reviewing standards of practice for gerontology nursing. Members may attend the Nursing Organization Alliance meeting to be held in Albuquerque New Mexico. The conference highlights will include specialty care of older adults.

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Hat's Off



Verena Briley Hudson, MN, RN, the AASCIN's Associate Editor was elected by over 6000 American Organization of Nurse Executives' members to serve on the Board of Directors as Member at Large for a 3-year term. Verena is also the first to serve in the new "Member at Large"

Board of Director role. The Board Member at Large role was created and voted on in the organization's past election in an attempt to capture nurse leaders who might not otherwise be able to serve if they were not in a particular region, such as for VA and military or others who move to other (out of geographic) locations. A few years ago, Verena also served as Region 5 (IL, WI, IN, MI, OH) and while in Texas, Region 7 (TX, OK, LA, AR) Board of Director.

<http://www.aone.org/aone/about/2008PressReleases/100808.html>

Save the Date!

The 2009 Congress on Spinal Cord Medicine and Rehabilitation

Sheraton Dallas Hotel

September 23-26, 2009

The Congress on Spinal Medicine and Rehabilitation, the nation's premiere conference for spinal cord injury professionals, is coming to Dallas, Texas, in 2009. And next year's Congress promises to be a truly unique, must-attend meeting of minds.

For complete details on how to register visit www.spinalcordcongress.org.

Copresented for the first time by the American Spinal Injury Association (ASIA) and the American Association of Spinal Cord Injury Nurses (AASCIN), the American Association of Spinal Cord Injury Psychologists and Social Workers (AASCIPSW), the American Paraplegia Society (APS) and the Therapy Leadership Council in Spinal Cord Injury (TLCSCI)—and supported by Paralyzed Veterans of America—the Congress is expected to bring together more than 750 leaders, the "best and the brightest," in spinal cord injury/disease/dysfunction (SCI/D) healthcare and research.

This year's Congress topics include: Pain Management, Secondary Complications Associated with Aging and Evidence-Based Practice.

ASIA and AASCIN, AASCIPSW, APS and TLCSCI have long track records respectively of providing excellent annual scientific meetings. By combining their resources, this year's not to be missed Congress will be a world-class venue for SCI/D professionals to network, share ideas, and to integrate the disciplines of medicine, nursing, psychology, social work, behavioral health and rehabilitation therapy—leading to better treatments, therapies and cures for people who live with SCI/D.

"SCI Core Curriculum" Offer

Widely considered a "must-have" text for all SCI nurses and edited by longtime AASCIN members, Audrey Nelson, PhD, and Linda Love, MS, RN, CRRN, *Nursing Practice Related to Spinal Cord Injury and Disorders: A Core Curriculum* is now available to AASCIN members at a significant discount. Thanks to an arrangement with Demos publishing, AASCIN members may order the book directly at a 35% discount, with free shipping. Go to www.demosmedpub.com and enter "AASCIN" as a discount code. Demos generously donated two copies for the book draw at the annual SCI Conference in Florida last year.



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Consortium for Spinal Cord Medicine: Clinical Practice Guidelines Update

Linda Love, MS, RN, CRRN

AASCIN Representative to Consortium for Spinal Cord
Medicine Clinical Practice Guidelines Steering Committee

Linda Love continues to serve on the AASCIN Clinical Practice Committee as the AASCIN representative to the Consortium for Spinal Cord Medicine Clinical Practice Guidelines Steering Committee. The mission of the Consortium and that of AASCIN are both targeted at improving the quality of health care provided to individuals with spinal cord injury. The Consortium develops, produces, and disseminates SCI evidence-based clinical practice guidelines (CPGs) and companion consumer guides with which you are familiar. These guidelines are benchmarks for national standards of care for individuals with spinal cord injury/disorders with intention to improve clinical outcomes as well as enhance education and program performance. The Consortium membership includes 22 health care professional and payer organizations representing physicians, nurses, therapists, psychologists, social workers, consumers, insurance case managers and policy makers. The Paralyzed Veterans of America sponsors and coordinates the development process.

The series of spinal cord injury guidelines which are currently available and used in our daily professional practice include topics addressing autonomic dysreflexia, depression, neurogenic bowel, pressure ulcers, outcomes following spinal cord injury, thromboembolism, respiratory management, upper limb function in spinal cord injury, and bladder management. The newest professional guideline of this series, *Early Acute Management in Adults with Spinal Cord Injury* was published May 2008. AASCIN members who provided field review of the acute management guideline were Kristine Engel, MSN, RN and Joan McMahon, MS, RN. A consumer guide, focusing on frequently asked questions by families and significant others immediately following spinal cord injury is being developed as a companion to this

publication. The current companion consumer guides, which are invaluable for patient and family education, address autonomic dysreflexia, depression, neurogenic bowel, pressure ulcers and expected outcomes for various levels of spinal cord injury.

Two future guidelines which are undergoing development include topics addressing diabetes/metabolic syndrome in spinal cord injury and sexuality/reproductive health in spinal cord injury.

A guideline addressing psychosocial issues following spinal cord injury is in the initial planning stages.

Three consumer guides which are in process of upcoming publication include upper extremity, bladder management and respiratory management as companions to the professional guidelines.

Review of previously published Consortium CPGs is an ongoing process. Guidelines which will be undergoing review in order to determine need of revision are: *Neurogenic Bowel Management in Adults with Spinal Cord Injury*, *Pressure Ulcer Prevention and Treatment Following Spinal Cord Injury* and *Prevention of Thromboembolism in Spinal Cord Injury*.

In addition to guideline development and review, the Consortium addresses guideline dissemination to ensure that clinicians are aware of the guidelines and have them readily available for reference and education. Printed and downloadable versions of the clinical practice guides and consumer guides are available through the Paralyzed Veterans of America Consortium for Spinal Cord Medicine website www.pva.org under Research and Education. Guidelines can also be made available by contacting Rachel Hoeft, Associate Director, Education, PVA; 801 Eighteenth St., NW, Washington, DC 20006; phone 202-416-7651; e-mail rachelh@pva.org.

If you have any questions or comments regarding the Spinal Cord Injury Clinical Practice Guidelines please contact me at linda407565@yahoo.com.

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Bulletin Board

Submitted by Jessie Dickerson, RN, MSN, CWON-AP, CFCN

The 2009 Congress on Spinal Cord Medicine and Rehabilitation

Date: September 23-26, 2009
Location: Sheraton Dallas Hotel
Website: For complete details on how to register visit www.spinalcordcongress.org

Third International Conference on Disability and Rehabilitation

Date: March 22-26, 2009
Location: Riyadh, Saudi Arabia
Contact: Download the registration form in PDF format
Website: <http://www.pscdr.org.sa/Documents/3rd-international-conference-for-disability-en.pdf>

Neurorehabilitation 2009: Bridging the Divide

Date: August 26-28, 2009
Location: Johannesburg, South Africa
Contact: Robbie Cameron
Website: <http://www.sanea.org>
Deadline: Abstracts/proposals – 30 May 2009

Spinal Cord Injuries CE Conference

Date: March 17-21, 2009
Location: Orlando, Florida
Contact: Contemporary Forums at 800-877-7707
Website: www.contemporaryforums.com

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2009 Nurse in Washington Internship (NIWI)



March 29-31, 2009
The Liaison Capitol Hill
Washington, D.C.

Register online at:
<https://www.AMRms.com/ssl/alliance/2009niwi.cfm>

NIWI Attendance

NIWI is open to any RN or nursing student (all levels of education) who is interested in learning more about the legislative process. There is no application or acceptance process to attend NIWI. You just need to register and pay the registration fee. The registration fee covers all conference sessions and scheduling of Capitol Hill Senate visits.

Purpose

The Nurse in Washington Internship (NIWI) Program provides nurses the opportunity to learn how to influence health care through the legislative and regulatory process. Participants learn from health policy experts and government officials, network with other nurses, and visit members of Congress.